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ABSTRACT

This book presents the results of the examination, during 1969, of the behavioral objectives movement in English instruction by the NCTE Commission on the English Curriculum. It points out that, although some major benefits may eventually arise from the writing of English behavioral objectives, "the process bristles with problems in semantics, philosophy, psychology, measurement, and pedagogy," and "there are real dangers to the English curriculum possible within the behavioral objectives movement" if it fails to accommodate "the humanistic aims which have traditionally been valued" in English. Part 1 consists of a fictitious narrative concerning the problems faced by an English department chairman who must redefine English in a framework of behavioral objectives. Part 2 contains 11 articles concerning English instruction and behavioral objectives by Sue M. Brett, James Hoetker, John C. Flanagan, Lois Caffyn, J. N. Hook, Alan C. Purves, Isabel Beck, Geoffrey Summerfield, James Moffett, Donald A. Seybold, and Robert F. Hogan. A bibliography on behavioral objectives concludes the volume. (This document previously announced as ED 040 211.) (JM)

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ON WRITING
Behavioral Objectives
FOR ENGLISH

Edited by John Maxwell
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and Anthony Tovatt
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COMMISSION ON THE ENGLISH CURRICULUM
NATIONAL COUNCIL OF TEACHERS OF ENGLISH

CS 200 375

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Foreword

The Commission on the English Curriculum is concerned about all developments which bear upon instruction and curriculum in the nation's schools. At times it has sought through its publications and pronouncements to create trends and tendencies; at others it has sought to interpret trends and events for the nation's teachers and supervisors at the local level.

In keeping with the latter aspect of its work, the Commission in early 1969 began to examine the influence of a widespread and growing movement called, loosely, "behavioral objectives" which had begun sweeping through schools and some colleges, and to examine this movement as it applied to instruction in English.

Through reading and personal study, members prepared themselves for a conference held November 24 and 25, 1969, prior to the annual NCTE convention in Washington, D.C. The conference was called to bring light upon certain substantial questions which the Commission felt the behavioral objectives movement posited for the profession. Among the questions probed were the following: What do behavioral objectives imply about human learning, about instruction, about curriculum content? Are there clear benefits to students and to their teachers from pursuing changes in overt behavior? Are there dangers and shortcomings which have not been realized? Are subjects (like English) which aim partly toward emotional "response" or aesthetics or the creation of novel utterances amenable to analyses which presume that all learning results in overt, observable behaviors? Or are such analyses better suited to subjects in which elementary skills and the acquisition of content are prime? Are there not extraordinary problems of measurement brought out

by the behavioral objectives movement? Or, if these measurement problems are not faced, is there not a real danger that curriculum will be limited to the trivial since trivia can be readily measured?

On the other hand, asked the Commission, is there not a nebulousness about the goals of English curriculum that makes them impossible to attain, or at least to know when one has attained them or made progress toward their attainment? Is it not true that knowing when one has made progress is an important part of taking heart and trying again? Is it not true, after all, that all education is supposed to have consequences in improved behavior, either now or later? Is there harm in knowing with precision what one is attempting to do and then knowing with precision when he has done it? Is the widespread suspicion about behavioral objectives merely a semantic brouhaha or even possibly a visceral response among those who do not want to evaluate themselves, much less be evaluated by others?

Six papers from the conference at which these questions were faced are reproduced in Part II. We are indebted to the authors of the papers for permitting us to reproduce them here. Also included with the permission of the authors are five additional papers thought to be useful and of interest to those in local schools who are setting about the writing of behavioral objectives for English.

The first part of this monograph draws occasionally upon these papers for direct language and frequently for specific ideas. But the substance of the first part is a narrative covering events in "Anytown," where an inservice program has been organized to prepare for the introduction of behaviorally defined goals of instruction. Miss Emily Jones, department chairman, faces the task of redefining English in a framework of behavioral objectives. The attempt has been to make the reading palatable and suited to the teachers who must work on curriculum after hours when the spirit is weak, or to those more fortunate teachers who have been given summer time for the task.

The bibliography which concludes Part II was prepared especially for this publication by the NCTE/ERIC Clearinghouse in the Teaching of English. It not only sets down for the profession current sources of information on this question, but also reflects the pervasiveness of the issue at all levels of instruction, including behavioral objectives programs already in use in two-year colleges.

If any one thing has been learned from the Commission's study, it is that writing behavioral objectives for English is a devilishly hard and intellectually demanding task (harder still is deciding whether to write them at all). What

seems patently clear is that, without reverie and plenty of work, thoughtful results in writing behavioral objectives are not possible.

The Commission on the English Curriculum feels that even though some major benefits might someday arise from the writing of behavioral objectives for English, a clear caution must be uttered: This is not a task to be undertaken lightly nor by lightweights. The process bristles with problems in semantics, philosophy, psychology, measurement, and pedagogy.

Furthermore, there are real dangers to the English curriculum possible within the behavioral objectives movement; and while the Commission by no means condemns the writing of behavioral objectives, it feels compelled to warn the profession against premature and unsophisticated attempts.

The Commission's study of the subject led to the passage of the following resolution at the Annual Business Meeting of NCTE in Washington:

On the Need for Caution in the Use of Behavioral Objectives in the Teaching of English

BACKGROUND: The Commission on the English Curriculum has recognized that the growing practice of proposing that behavioral objectives be defined for the language arts, and that these objectives be employed in testing, leads to a complex, demanding, and possibly educationally dangerous activity. Expert witnesses on the goals of English, in conference with the Commission, have echoed the Commission's concern that real damage to English instruction may result from definitions of English in the behavioral mode, and advise that the methods of measuring the attainment of behavioral objectives are still too imperfect to justify the extensive use of comprehensive behavioral definitions of English.

While the Commission advocates that all teachers be open-minded about possible alternatives for defining and structuring the English curriculum—including the use of behavioral objectives—at the same time it urges caution and accordingly presents the following resolution:

Resolved, That those who propose to employ behavioral objectives be urged to engage in a careful appraisal of the possible benefits and the present limitation of behavioral definitions of English with reference to the humanistic aims which have traditionally been valued in this discipline.

And be it further Resolved, That those in the profession who do undertake to write behavioral objectives (a) make specific plans to account for the

total English curriculum; (b) make an intention to preserve (and, if need be, fight for) the retention of important humanistic goals of education; and (c) insist on these goals regardless of whether or not there exist instruments at the present time for measuring the desired changes in pupil behavior.

The authors are particularly indebted to the participants in the November conference (whose articles appear in Part II); to the members of the present Commission on the English Curriculum, who read the manuscript and made valuable suggestions during its development; to former members Dorothy Knappenberger, Robert Ruddell, Arthur Eastman, Shiho Nunes, and Jewell Bindrup, who helped in conceptualizing the monograph; and to Robert Mager, whose *Preparing Instructional Objectives*[1] has done so much to make this monograph necessary and possible.

[1] (Palo Alto: Fearon Publishers, Inc., 1962).

Part I

A narrative consisting of dialogues among Emily Jones, department head, members of her faculty, and Mr. McNemar, the systems man.

September

It was only 9:00 a.m., and already the September heat began to creep back into the auditorium.

Mr. Sloan leaned over to Emily Jones and murmured, "Another scorcher, Emily. I thought yesterday afternoon during the department meeting that I'd never make it to the coffee break."

Miss Jones opened her notebook and glanced at him. "Well, George, you never have been much for department meetings anyway. You sure it was the heat?"

"Now, Emily. Don't scold. I told you I'm turning over a new leaf this year. I'm going to be a model member of the department. No rebellions. Just sweetness and light."

Miss Jones made no comment. After a pause, she said, "I hope they get started on time this morning. I've a great deal to do." She waved to Tom Flannery, adjusted her skirt, and doodled in her notebook.

"Good morning, staff." The voice of the principal, Mr. Novatney, came too loudly over the auditorium speakers. The feedback squealed and caused him to jump back, but the noise quieted the babble.

"This morning, we're going to begin taking a look at the subject of our inservice program this year, behavioral objectives. That's B.O.'s for short." Mr. Novatney chuckled to himself, hoping to bring the audience along with his humor. The silence deepened.

"I'm happy to introduce to you today Mr. Frank McNemar, a systems expert from the Endotron Corporation who will be this year's continuing consultant in our inservice program. For years, Mr. McNemar was associated with the departments of psychology and education at the state university where he was associate professor. Many of you know him, and although he

has now gone into consultant work in private industry, we still count him as one of the important educators of this region.

"During the coming months, Mr. McNemar will speak to us several times at faculty meetings but will spend most of his time with us in meetings at the department level and, frequently, in conversations with individual teachers."

Mr. Novatney sipped from a glass at the side of the lectern. "As you all know, ladies and gentlemen of the faculty, this past year was not a pleasant one in terms of our relationship with our community. I need not review the events of the year, but you'll agree with me that the failure of the bond issue to pass was perhaps the culminating event. The Board of Education's analysis led to a conclusion that the people want evidence of better education before they'll give us more money. The Board has asked us to begin to apply to the instructional process some of the modes that are used in industry and the military for planning and laying out our objectives and assessing our achievements.

"In the systems approach, which Mr. McNemar is going to help us to understand and apply, the first step is usually the specification of behavioral objectives—statements which describe in concrete, measurable terms that which we are seeking to attain.

"I won't take Mr. McNemar's time, but I'd like to say that it would be easy to misinterpret the Board of Education's action in recommending that we apply the systems approach to our instruction. It is not, as rumored, an attempt to save money. If anything, the application of the systems approach may cost more. For my part, I would like to stress that we are after greater clarity of our goals, more substantial individualization of instruction, and ultimately a better education for our boys and girls.

"Now I'd like you to meet Mr. McNemar, who will address us on the significance of behavioral objectives to modern approaches to instruction. Mr. McNemar."

A polite smattering of applause crept across the auditorium. Miss Jones' back, beginning to perspire, objected to the prickliness of the velour back on the ancient auditorium seat. She sat slightly forward and watched the speaker move toward the lectern, a slender man, about fifty, gray-haired, strangely cool-looking despite the heat of the stage lights.

"Thank you, Mr. Novatney. It's a pleasure to be with you, and if I could do something about the temperature to make your introduction to the systems approach more pleasant, I'd do so. So, I'll take a second tack bound to give relief from the heat. I'll be as brief as possible.

"Before I begin, I'll mention the paperback which was distributed to you as you entered. Mr. Mager's little book [1] can be called the primer in writing instructional objectives, or as I prefer to call them, behavioral objectives. It is a programed textbook for teachers—actually it was first written for teachers of vocational subjects—and aims at the *how* of writing objectives. Before our next meeting on the 14th, I hope you will read and discuss this little book. It is well written and is a good program of its type. We'll discuss the matter of how to write objectives on the 14th and again on the 21st. All right, so much for that.

"Today, however, it is more important that we look at the question of *why*. Why is there such a widespread call for writing objectives of instruction in the behavioral mode? All the way from medium-sized school districts like yours, through the state department of education, to the various agencies concerned with education in Washington,[2] there is an extensive and diligent effort to describe education in a new mode; that is, by describing both its goals and its outcomes as a very large set of behaviors which, taken together, constitute a definition of the educated person.

"But, the reasonable questioner asks, why behaviors? What justifies this shift of concern from qualities of the individual that we seek to engender, to a style which talks about human learning as behaviors?" Mr. McNemar paused to mop his brow.

"Human beings behave," he continued. "No question about it. From the first cry at birth to the death-rattle, humans exhibit an enormous array of actions which can be (and are) called behaviors. The actions we don't like are called *mis*behaviors, but for some reason we have difficulty labeling the things we do like as behaviors. We much prefer to call them learnings, outcomes, or proficiencies.

"The act of looking at the behaviors of animate and inanimate things has been the hallmark of science ever since Copernicus had the effrontery to suggest that the earth was not the center of the universe. The physical sciences have long depended on acute and technically proficient observations and descriptions of behaviors. The social sciences—much younger but nonetheless assured—have for half a century put great faith in acquiring enormous quantities of data as the basis for prediction and, sometimes, manipulation of social structures.

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[1] Robert Mager, *Preparing Instructional Objectives* (Palo Alto: Fearon Publishers, Inc., 1962).

[2] See the paper by Sue M. Brett in Part II of this monograph.

"It is probably inevitable that a society which is as much affected by science as is America should ask: Is not the school an instrument by which the society seeks to affect the behavior of its students? If so, what are the behaviors which are sought as a consequence of schooling? Are the present means of producing those behaviors in children as efficient as possible? Are there other ways that will work better? Is schooling, after all, really working? How do we know if we do not measure the results with any precision? How can science improve the productive capacity of the school as it has improved the output of factory, farm, systems of communication, travel, and even scholarly inquiry through the application of scientific and systematic planning and management?"

Mr. McNemar paused. "The word *system* is a critical factor in this set of questions. For the answer to the matter of efficiency—from rockets to rutabagas—is, we believe, the efficient use of human intelligence through a "systems" approach to production problems. And in efforts to apply intelligence to these problems, a listing of specific and measurable outcomes is essential. If you don't know in objective terms what you're after, you can't improve your efficiency of getting it. You are doomed to stumble around, hoping against hope that you'll finally arrive, and never really knowing.

"Those who espouse systems approaches in education quite naturally must have goals, and they must have the goals stated in such a fashion that one can know when the goal has been attained. Systems experts tend to be dismayed at the present educational system which seeks such classic but nebulous goals as 'citizenship' and 'worthy use of leisure time' or 'health.' What, they ask, in the name of heaven do those terms mean?

"Or, to bring the discussion closer to home, what do we mean when we say, 'I want the student to respond to literature,' 'I want him to understand the role of history in the life of Western man,' or 'The student should be a creative, self-actualizing person'?

"The more temperate of the systems authorities will calmly say: 'I couldn't agree more with what you appear to be after. But will you help me translate the abstract objective into concrete, behavioral objectives?'

"Recently I posed this question to a teacher in a district not far from here. The teacher—as I recall, she taught social studies—didn't believe that her objectives were abstract at all. But I persisted. I said, 'Miss X, let me try the question another way. Do you know any creative, self-actualizing people?'

" 'Well!' she huffed at me. 'Of course I do, don't you?'

"I ignored her knife edge and continued. 'Miss X, what does the creative,

self-actualizing person do? I mean how does he characteristically talk with others, treat his wife and family, participate in the community, face problems, use his leisure time, or carry out his work at the office? In short, how do you know him when you see him?'

"I needn't pretend that I made much progress. Miss X heard the bell for her fourth hour, gathered up her books and papers, fluffed her hair, and skewered me with a stare. 'Well,' she said, 'if I have to explain such things to you, it's apparent we'll never be able to write behavioral objectives, will we?' With that she departed.

"Now, maybe I caught Miss X on a bad day, but later that afternoon I visited her class and observed afterward that her objectives had been to be sure that students learned the names of the presidents and their dates of office in order and to come to appreciate what our forefathers had done for us.

"For the life of me I couldn't figure out the relation between her objectives in the class period and the ultimate goal of developing a creative, self-actualizing person. The point of this story is that there is often a very wide gap between what we say our objectives are and what happens in our classrooms. One observer has pointed out that it is not uncommon for classroom events to be aimed apparently at precisely *opposite* goals from those we profess in the curriculum guides.[3]

"Well-formulated and well-thought-out behavioral objectives serve instruction by reducing this gap between what we do and what we say we want to do. For the behavioral objective is written with such specificity and exists so intrinsically in our daily plans, that we cannot escape its guidance."

Mr. McNemar loosened his necktie and collar. "I think that's perhaps all for now. When we meet on the 14th, we'll take up the matter of how one writes behavioral objectives. This does not mean that the *why* has been fully answered. Not only is *why* a critical matter, it is probably one that cannot be dealt with in a large meeting. It's enough to say that in the coming weeks we will continue to consider the matter of why, and I look forward to these discussions with you. Thank you."

The applause at the end of his remarks was stronger than at the beginning, and Miss Jones wasn't quite sure whether the cause was enthusiasm for his ideas or for his appreciation of the audience's discomfort.

In a moment, Mr. Novatney waved everyone to the refreshment tables which were humanely stocked with chilled soft drinks.

[3] See the paper by James Hoetker in Part II of this monograph.

October

At precisely 3:45, Mr. Novatney opened the faculty meeting. All activities after school had been cancelled. ("Even *football*," mused Miss Jones. "I don't think I've ever seen such a large gathering at a faculty meeting. Hmmm.")

Mr. Novatney spoke. "Ladies and gentlemen, I feel we're really beginning to bite into this behavioral objectives task. Several of you have relayed to me your discomfort about a number of aspects of the project. And I've relayed them to Mr. McNemar. Since you now know him personally, I'll skip the introductions and let him get at your questions."

Mr. McNemar sat on one of the lounge tables and swung his legs back and forth a little.

"At our first meeting in September, I talked with you about the purposes of such a style of phrasing objectives. I'd like to take up that question again today by way of considering the matter of the entire framework of the systems approach.

"I feel safe in saying that each person in this room has the desire to reach that ultimate state which education has professed for a hundred years but has not reached: that is, individualized instruction.[4] We all recognize the futility of teaching something to a person who already knows what we want him to learn, or the reverse, teaching something to someone who lacks the tools or background for learning the new idea or skill. When we tell a group of students something, we make substantial assumptions about the appropriateness of the information for them in their present condition. A good part of the class is not ready for what we're saying; another part has already known it for some time. Fortunately, youngsters are conditioned to be patient with these practices, and our inefficiency as teachers goes largely unnoticed.

[4] See the paper by John Flanagan in Part II of this monograph.

"The new conception of education—some like to call it the education of the future—is that education should be individually tailored to the needs, the readiness, and the interest patterns of individual students. A method of mass instruction such as lecturing, as you realize, does not facilitate this sort of individualization. In an ideal situation, the lesson for a given youngster will take into account his level of attainment in the subject, the problems he typically encounters in learning it, the skills he has (or has not) mastered, what he is ordinarily interested in learning, what his personal objectives are, and even how he feels on a given day.

"The so-called systems approach classroom, in the face of the demands for this kind of individualized instruction, has to do two things: first, it must have a definition of what it is that the school program is attempting to accomplish, phrased in terms of things the student is supposed to be able to do. It is necessary that these be stated in behavioral terms, for it is only when the student does something that can be observed that we know that he has arrived.

"Secondly, the systems approach requires that the work be so arranged that each student according to his energy and skill and also according to his interests can choose (or be aided in choosing) the next unit of work to be undertaken. Thus, the classroom would rarely be a place where all students at once were proceeding through the same material at the same time and at the same rate. Since only individuals learn, it is individuals that must be taught and taught according to individual needs, interests, and styles of learning.

"Now, behavioral objectives are the key to the system. What the teacher does is of course pertinent to learning, but the teacher's actions are not student learning. The school is concerned about learning; and exposure of students to a certain subject matter by the teacher may be teaching, but it is not necessarily learning. That is, there may be little or no relation between what the teacher does and what an individual youngster may learn. So we can't look at the teacher to determine what learning has transpired. We have to look at the student.

"And how do we look at the student? We have no access to his mind. We can only tell when he has learned by looking at what he does. He can write words, he can speak, he can manipulate a machine, he can make something, he can *not* do something (for example drop his books at precisely 10:03), or thousands of other actions. But the critical thing to note is that he does something.[5]

[5] See the paper by Lois Caffyn in Part II of this monograph.

"When he does something upon request and according to a measurable criterion, we then know that he has learned. If we really want to be precise, we can find out *before* he studies whether he can already do the thing we want him to do. It is, of course, more than possible, isn't it, that the student can already write a business letter, and do it well, before we start him off on a unit on letter writing? If he can, the humane thing to do is to give him something else to do of more value.

"That's the essence of the systems approach: find out what it is that you want the learner to be able to do; test him to find out whether he can already do it; if he can't, give him instruction that he can go through as efficiently and rapidly as he is able; and then test to see whether he can do it. There's nothing exotic about the systems approach: it's just common sense.

"On the other hand, it appears nonsensical to proceed as though all students are equally unable to write a business letter, to give all students the same program of instruction, and then to hope against hope that as a consequence of instruction they will all be able to write a satisfactory business letter.

"Another aspect I haven't dwelled on is the essential humaneness of the systems approach. It is based upon the notion that people ought to be successful. This is to say that a student should study only that which he is ready for. It does not mean he would study that which he already knows. It means he studies only that which he has the skills and the background knowledge for. He is not supposed to fail seriously at any time. If he does fail, it is the fault of the instruction or the fault of the 'prescription' (that is, the selection of the learning task) that was given to him.

"So this is the goal: individualized instruction, something everybody wants, but which no school has yet achieved. The systems approach is, I am convinced, the only practicable way to get it. And the systems approach is critically dependent upon your stating your objectives in behavioral terms. Without behavioral objectives, there is no way to individualize instruction, for there is no way to know when one objective has been reached and when the next one should be sought after."

Mr. McNemar paused and stood up. "Now, we've got about twenty minutes. I'd like to hear some of your questions. This is one way I have of testing whether I'm communicating. You've probably already noted that I'm violating the systems approach by talking with you in a group. Obviously, not all of you are at the same readiness for what I've had to say. Questioning and inter-

action are one way of individualizing instruction; but they're not a very good substitute. Anyway, let's hear your questions."

Mrs. Horgan, the business teacher, couldn't stand the silence and raised her hand. "Mr. McNemar. I wasn't here last week when you described what a behavioral objective looks like. Could you review that briefly? I think there are others here who are not quite clear."

McNemar strode to the chalkboard at the side of the lounge. "Yes, let's do that. I think a chart or grid would be the best way. It's useful, I believe, to think of a behavioral objective as a three-part entity. In the middle is the action you want the student to demonstrate. For example, let's take a simple one: 'The student is able to add a column of three-place figures and arrive at a correct total.'

"Now at this point we have what some might call an educational objective. It tells only what the student must be able to do. It is obviously the central element in a behavioral objective, or what Mager and others refer to as the *instructional* objective. To the behavioral goal, we add the first and third parts. The instructional objective looks like this:

Given a column of four 3-place numerals,	the student is able to add the column and to write the correct total	95% of the time.

In a real sense, the part of the objective at the left describes the test conditions. You might call it the stimulus, or that with which the student must deal or to which he must respond. At the right is what is called the quality criterion. Notice that the quality criterion is very high. While 70 percent may be the separation point in school grades between pass and fail, the criterion level in an instructional objective is usually quite high. This simply reflects the desire among systems people for success as a pattern. One hundred percent would, of course, be too high, for each of any set of educated adults will make an occasional error; but 70 percent is far too low to represent mastery of an important skill like addition.

"Later on this semester we'll be writing behavioral objectives for your subjects, and we'll be able to take a detailed look at the style of writing that is required in particular fields. For now, that's the essence."

Mr. Flannery, the art teacher, waved his hand speculatively. "Let me take a crack at writing an objective, by way of asking a question. That O.K.?"

"Sure."

"O.K. How's this one? 'Given four paintings by Degas, the student will be able to appreciate French painting 95 percent of the time.'" A vague guffaw arose from one corner of the room. No one else stirred.

Mr. McNemar smiled. "Nice try. You've got all the parts of the instructional objective there. But let's look at the middle and particularly the word *appreciate*. This is a problem term that bedevils writers of behavioral objectives in fields concerned with aesthetics—such as art, music, and literature." McNemar glanced briefly at Miss Jones who had stopped grading papers.

"The word *appreciation* or *appreciate* is troublesome because it does not describe or indicate an action—that is, not directly. We're faced here with the problem of what *appreciate* means. What does a person do who appreciates? Does it mean that a certain gleam appears in his eye? Does it mean that he'll go to the library and check out a book, a painting, or a record which typifies the thing he appreciates? Does it mean that he will *say* that he appreciates the work? Does it mean he'll sit for an extended period of time and look at, read, or listen to a work? Will he spend his money for an example of the thing he appreciates? Will he recommend the work to other people with enthusiasm? Given, to use your example, a painting by Degas and a painting by Winslow Homer, will he choose to look at the Degas?

"In other words," continued Mr. McNemar, "what does *appreciate* mean? I'm sure you know what you mean, and I'm sure that given time to ponder the matter you could translate the term into observable behaviors which you could observe and record. If such translation is not done, then you and I have no basis for saying that appreciation has been attained, do we?"

Mr. Flannery looked pensive, but said nothing, and gave his mustache a tentative twist.

"Anyone else?" Mr. McNemar waited.

"Yes," rumbled the voice of Don Denison, the football coach. "I don't see what all the flap is about. These behavioral objectives are nothing new. We've been breaking big moves into small moves and training kids in them for years. That's how we win ball games. Fundamentals. If a boy's not doing well on tackling, we analyze what he does and decide which smaller part of the act of tackling he's failing in. Then we teach him to do that."

"Good observation, Coach. The analysis you do and the teaching of subskills leading to larger skills is an essential part of instruction in the systems approach. What's new is that the question is being asked of academic areas for perhaps the first time. What is it that you expect the student to do? In football or basketball, it's really rather clear what the student is to do, and the

work is clearly observable. Either he does it or he doesn't. But in academics there is a greater degree of covert—that is, hidden—behavior; and we're simply not used to the notion that thought has consequences in behavior."

"Well, it sure ought to. What's the use of thinking if you don't ever do anything about your thoughts?"

Mr. McNemar rubbed his temples. "Well, I wish I had an easy answer to that. I think we both have to grant that some students who do quite a bit of thinking apparently don't always want to say or do something which reveals the quality of their thought. But, leaving that problem aside, I have to agree with you, Coach, that thought of any significance should have consequences in behavior. Otherwise, I'm afraid that education in thinking would be meaningless."

Mr. Malone, from social studies, sucked sharply on his pipe. "Mr. McNemar, I teach American history, and I expect my students to have good factual information on persons, places, and events. I expect this because the parents expect it and because I think it's important for kids to know where they are in time and who has made contributions to the world within which they operate. A lot of people in my department don't share my feelings on the importance of facts. I kind of like this idea of behavioral objectives; it's specific and lends itself to teaching and testing for facts and basic understandings. I think we've needed this sort of thing for a long time. Without facts, social studies is pretty woolly."

Mr. McNemar rubbed his temples again, "Yes, I can see how you might be attracted in this way. But as a systems person I'm forced to wonder a bit about the place of facts. What is it that facts are supposed to lead to? I don't think merely knowing or being able to recite facts is what you want. You mentioned during your question something about 'knowing where they are in time.' Right?"

"Right."

"In other words, you might want students to be able to write or state how a given present event relates to earlier events of significance in history. If that is so, then learning facts is, in itself, of little direct significance but is a type of objective that lends itself to a more advanced objective. This, of course, is a common problem in objective writing: knowing what a given objective of a fairly narrow sort relates to.

"Current events work is the ordinary place where these stimulations of the desired behavior can be tested, and I'd say that in such activities you can begin to know if the student can apply his knowledge to interpretation. This behavior

is probably close to the behavior you seek." Mr. Malone sucked on his pipe and looked annoyed.

Mr. McNemar glanced at his watch. "I guess it's . . ."

"Just a minute." The voice was Miss Jones' clear sibilant speech. "Let me understand this matter of levels of objectives. I've read one report which indicates that it is perfectly proper to state an objective in abstract terms, such as 'Worthy Use of Leisure Time,'[6] and then move from that level to the more concrete, observable level. Then you can move to the level which describes behaviors that a third grader, a fifth grader, and so on should be able to do which approximates some form of the final, or as you said terminal, behavior. Have I got that right?"

Mr. McNemar wound his watch and smiled. "Yes. That's perfectly reasonable and possibly reasonably perfect as a procedure." Miss Jones smiled at his metathesis. "Well, I think that's all the time we have today. I'll be looking forward to meeting with you in your department meetings during the coming weeks. There's a great deal of thinking and talking to do before we set down the objectives for your disciplines. This is not easy work nor can it be hurried. There are available lists of behavioral objectives which can be adapted for your use and thereby accelerate the process.[7] But you have local objectives and your own points of stress that are pertinent to your own styles and to your students' needs. So there's work to be done, and I feel gratified that your administration is putting the time and facilities of the system behind your efforts."

Mr. Novatney arose to thank Mr. McNemar and the faculty for the interesting discussion, made a few announcements bearing on school procedures, welcomed a new teacher, and dismissed the faculty meeting.

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[6] See the paper by J. N. Hook in Part II of this monograph.

[7] James Popham and others have prepared sets of behavioral objectives in language arts and other subjects for a computer "bank." Write to UCLA Center for the Study of Evaluation, University of California at Los Angeles (Los Angeles, California 90024) for a price list and descriptive brochure.

November

Miss Jones frowned at the paper in front of her. "Mr. McNemar, I'm really trying to understand and cooperate with what you're trying to do. But, frankly, this sort of thing doesn't make sense for English."

McNemar shifted uneasily. "How so?"

"This is a humanistic study. We're very much concerned with what people believe and how they feel. I try to translate that type of objective into behaviors and I run into all sorts of troubles."

Mr. McNemar rubbed his temples briefly. "The student is expected to write in the English class, isn't he?"

"Of course."

"And isn't that a behavior? I mean writing is a behavior, isn't it? I don't think that is a feeling or a belief."

"Well, yes. That's true. Of course his writing will be a little drab if it doesn't reflect his feelings or beliefs."

Mr. McNemar said nothing for a moment. "Well, what else is there in English? Spelling, capitalization, punctuation, manuscript format, handwriting —those are all behaviors. And I think we'd agree that they serve a larger behavior, that of composition. All right?"

Miss Jones nodded. "I suppose."

"And these mechanical skills, since they're behaviors of an observable, measurable type, can be listed as behavioral objectives. They can be taught, they can be learned, and they are part of English. Do you agree?"

"Yes, of course. They are part of English and they are measurable. But it would be a terrible mistake to confuse the learning of mechanics with the essence of English teaching. Am I to understand that you equate English with the learning of the mechanics of composition?"

Mr. McNemar twisted slightly in his chair. "No, of course not. I'm merely trying to establish the point that behavioral objectives do have a place in the English curriculum. You started out by saying that they don't make sense for English."

"All right, I grant that there seem to be some aspects of English which lend themselves to objective measure and perception as behaviors. But that's a long way from saying that all or even a large part of the subject is amenable to objective measurement."

Mr. McNemar touched his fingertips together in an arch and gazed at them speculatively. Miss Jones gazed out toward the football practice field where long shadows partly hid the figures of the helmeted players. "The playing fields of Eton," she murmured to herself.

"Pardon?" said Mr. McNemar.

"Oh, nothing. Just a little whimsy." She smiled at Mr. McNemar. "I was just daydreaming a bit and thought of a line of poetry. The line triggered an idea about some of the boys in my classes who are out there on the field. I took a little twinge of pleasure in being clever and I think I understood the boys a little better for having thought the thought."

Mr. McNemar gazed at her, puzzled. "Yes," he said, flat and toneless. Hesitant.

"Don't you ever do that sort of thing? Just look at something, enjoy it, think of something else. And then feel you understand it better for having thought?"

"Of course. Why do you ask?"

Miss Jones stood and walked toward the window. "Well, that's what I've been talking about. To a degree, that's English. Trying to understand and appreciate, not just literature but also life and some of its mystery, its pattern. Understanding what we ourselves are made of."

Mr. McNemar began rubbing his temples. Miss Jones noticed the movement and laughed, gently. "I know, you think I'm getting fuzzy again. Maybe I am. But the point I'm trying to make is that I have done something. Ordinarily I wouldn't tell you what I did because there would be no need. But I wanted to show that people think and reflect and grow in understanding, but they don't necessarily *do* anything that another person can observe."

McNemar leaned forward. "Yes, but . . ."

"No, wait a minute. Let me finish," Miss Jones gripped her hands together, tense. "This whole matter of reflection and seeing interrelationships is essential in the work in English. We don't teach literature so that kids can pass tests. We

use literature as a means whereby the students can better understand themselves and their lives through studying the lives and events in the lives of others. And only a small part of this understanding is supposed to manifest itself in observable action, at least while they're in the English classroom."

She looked again out the window. "No. As soon as we ask them what it is that they feel or believe, they get coy and tell us what they think we want them to say. Beliefs, values, reflections. They're too fragile, and many kids are too embarrassed to talk about them. Often, they don't have the communication skills to put them on paper even if they wanted. And they won't tell them to teachers or even parents. Maybe among themselves, with their closest friends, they'll tell."

McNemar broke in. "Miss Jones, I don't see any conflict. I agree with you completely that those are important educational goals. I'm not sure they're the exclusive province of the English department. Maybe they belong to the whole school or even the whole society. But there's no doubt in my mind that seeking values and beliefs and engaging in reflective valuation of life—that these are important objectives."

"I don't think you heard what I said, Mr. McNemar. I said that we don't have the fondest hope of finding out what such learnings are, even if we want to find out."

"What you mean is, I gather, that you concentrate on carrying out certain types of activity in the classroom that you hope will lead to the acquisition of certain values and beliefs."

"No, not really. If I knew what the perfect values and beliefs were, I'd try to inculcate them, I suppose. But it's much more accurate to say that we carry on certain activities in hope that students will test their beliefs and values against other sets of personal beliefs and values. We hope that they will then determine their own tested values and beliefs as a consequence of the activities. But the main point is that there's no way I know of to determine objectively whether they have acquired a set of tested values and beliefs. And that's our problem, yours and mine. The objective appraisal of the results of instruction." [8]

Mr. McNemar turned in his chair and stared at the floor. "So, as you see it, the problem is one essentially of the *measurement* of the objectives you seek."

"Yes, I think so." Miss Jones turned away from the window. "There are, of course, people who are afraid of the idea of objective measurement of their efforts. The idea is so new that they're a bit terrified, but in my own case and

[8] See the paper by Alan C. Purves in Part II of this monograph.

in the case of most of our faculty, that's not the problem. We just feel that it's impossible to judge whether important learning has transpired. Put in the vaguest of terms, I suppose, we're after growth of our students as human beings—responsive, concerned, thought-prone, action-capable, warm, loving and . . . well, I'm sure you know what I mean."

McNemar pressed his finger tips together. "Miss Jones, let's go back to the problem I touched on in the first meeting in September. You've stated that you're seeking a certain type of person through the study of language and literature. I believe you agree with my nameless Miss X and call her the creative and self-actualizing person. Is that about right?"

"Yes. I use various terms, but Miss X's terms will do."

"All right. And I'm sympathetic to your objective, though my sympathy is irrelevant in a technical sense. You see, I'm supposed to be, in my work, non-valuing; that is, I do not wish to set goals but to help people in local situations realize their goals more fully.

"But leaving that aside, I can only generally understand what you mean by 'creative and self-actualizing.' I hope you understand my problem; and perhaps my problem is shared by many others, including perhaps your students. If there's no way of telling when a student has arrived or made progress toward such a goal, might it not be a little less than edifying to the student to come to the end of the year's work and not be sure he's gotten anywhere?"

Miss Jones said nothing, again gazing out of the window.

"Wouldn't it be helpful for one and all," McNemar continued, "if we could establish objective criteria that would assure the student that he had made progress and assure the teacher that he had accomplished what he had set out to do? For example, if the goal of instruction was, in part, that the student would be able to write descriptive paragraphs to a satisfying degree of quality, wouldn't both student and teacher feel pleased if they had evidence that real progress had been made? Wouldn't this have beneficial effects on both parties?" He paused for Miss Jones' response.

She turned. "Well, there you've returned once again to the level of skill, Mr. McNemar. And that's what I'm particularly afraid of. Systems people, in their desire to provide evidence of growth through objective evaluation, threaten what is really important in the objectives of the English program. I'm not saying that skill in descriptive writing is not important. The danger is that in concentrating on skills and perhaps on the acquisition of facts about English, you'll end up distorting the curriculum. Followed to its logical end, the skills and facts emphasis you seem to be espousing would completely

eliminate steps to develop the affective side of the student. Isn't it true that behavioral objectives are most readily written for the psychomotor and the cognitive side of human behavior?"

"Yes, that's true. But it doesn't mean that objectives for the affective domain *can't* be written. Granted, they are more difficult to write."

Miss Jones gave him a frowning smile. "But don't you see, Mr. McNemar? The people throughout the school are writing the easy type of objectives: for facts, skills, and the lower levels of Bloom's taxonomy.[9] Already we have written thousands of objectives, and they barely rise above the simplest sort. The administration and many of the faculty are anxious to get the system moving and begin teaching toward behavioral objectives. And yet, here we sit, acknowledging that the higher level objectives are important but unable to state them in the form required. There's the danger I've been talking about. We're on the verge of ending up with a sharply distorted English curriculum, and the essence of the thing hasn't been written, maybe can't be written."

Miss Jones began pacing. "Even the easy objectives prickle with problems of measurement. Teachers can't even agree on the definition of a satisfactory paragraph. It'll take years to work out the wrinkles in that problem alone. In the meantime, all our energy will be swung away from central concerns while we struggle with more peripheral ones. I'm sorry if I seem agitated, but I'm terribly worried, not about the program, or the department, or the faculty. I'm worried about the kids! We'll be neglecting the most important part of the English program, and therefore what I think is the most important part of their education, while we diddle with a high percentage of trivia. Don't you agree? Don't you see that the faculty is engaged in one huge effort at trivialization of the curriculum, writing thousands of objectives about next-to-nothing, simply because they are required to show how they will measure outcomes?"

McNemar teetered back in his chair. "Writing behavioral objectives is a difficult art, and we have to start somewhere, Miss Jones. Yes, there is a danger of trivialization, but the real danger is that you'll stop before the job is done. Before you've written behavioral objectives for the complete range of things you're trying to do."

"Mr. McNemar, this is dreadful. You put the burden entirely on us. You have come with a system for writing behavioral objectives and it seems to me you have started us off on a primrose path. Yet you are not ready to supply

[9] Benjamin S. Bloom, *A Taxonomy of Educational Objectives: Handbook I: The Cognitive Domain* (New York: David McKay Company, Inc., 1956).

help in writing objectives for what matters most, and you will go away long before the task of writing those objectives is complete. I really feel that what you're doing is sinful. There'll be acres of inconsequential behavioral objectives written, and the heart of the matter will be gone. English will be a husk. The school system will look very *mod,* and everyone will beat a path to our doors to see how we did it. And when they come, we'll have to force ourselves to hide the fact that we're a sham. Instead of an educational institution we'll have become a facts-and-skills factory, like a trade school. And we'll have abandoned our central responsibility to the students."

"Which is . . . ?"

"I've already told you, Mr. McNemar. To help them become creative, self-actualizing people, to use Miss X's phrase. People who care about others. People who have courage. People who look upon problems as opportunities. People who are willing to keep an open mind on all points of view but who can make up their minds and take action when they've absorbed the facts of situations. People who seek out quality in artistic expression. People who turn on to literary works, who get excited about life and look at it optimistically. People who love others and help them. People who constantly seek to understand themselves better and develop ways to improve themselves intellectually, socially, and emotionally. People who . . ."

"Now you're talking, Miss Jones." McNemar swung forward on his chair and pointed his finger at the department chairman. "Now you're defining the creative self-actualizing person. You've given a listing of what that sort of person does. It's still at a relatively abstract level, but you're filling in the details. You're telling me what that person *does,* and that's the critical beginning point. You've shifted from statements about the qualities or internal states of people, and you've begun to describe what people *do.*"

Miss Jones twisted a pencil among her fingers. "How are we supposed to measure those things? They don't occur until years after schooling is over. While they *may* occur during schooling, the real test comes years later. It's nonsense to talk about writing behavioral objectives for the school years when we don't know the consequences of instruction until the student has been away from us for years. Yet, you talk as if we should be able to tell immediately whether instruction has had consequences in the behavior of the student. There is simply no way to measure progress toward these objectives, and these objectives are central to what we do." Miss Jones paced more rapidly. "Yes, Mr. McNemar, that's the central issue. We have no tools, no means for measuring these long-term objectives. I'm not a testing specialist, and I don't

think anybody knows how to measure these important outcomes. You have no right to require workaday English teachers to state how these objectives are to be measured! And above all, you have no right to warp and distort our curriculum by saying or implying that if they can't be measured, our objectives don't exist." Miss Jones was red-faced and breathing heavily.

Mr. McNemar wound his watch. "Look, Miss Jones. It's getting late. Let me leave a copy of this article with you.[10] The author takes the view, and I agree, that we have to admit we cannot know fully whether the behaviors we seek can be known while youngsters are in school. Yet we have to know whether approximations of the desired behaviors have been attained. Otherwise we have no idea how to alter our practices to get as close as we possibly can to the ultimate behaviors we seek.

"I think also that you and I are in agreement about the importance of humanistic goals. Furthermore, it's extremely important that you insist that I, and other systems people, help you to help students make progress toward them. That they are not easy to describe in behavioral terms is beside the point. The objectives are real, and you should not settle for less. I justify myself only if I can help you articulate what you mean; and I fail if I force you to abandon your goals because of difficulties that this type of objective raises. I've never intimated that a thorough job of writing behavioral objectives would be easy. I appreciate your forcing these difficult questions. They're important to me too."

McNemar snapped his briefcase shut and stood. "I'll be back. Next time we meet, let's talk about articulating a more or less abstract objective, one perhaps central to English instruction. Let's try to get down on paper what that objective means in behavioral terms. Do you have a suggestion of what we might discuss?"

Miss Jones gathered a stack of themes and stuffed them into her purse. "Yes," she said. "Let's think about the phrase 'appreciate literature.'"

"All right, that sounds good to me. Let's both think about it. For now, goodbye and thanks."

"Goodbye till next time, Mr. McNemar."

Alone, Miss Jones broke the unnatural silence of the room by snapping off the lights. She looked again at the football practice field where two boys again and again practiced the "long snap" from center to punter. Miss Jones sighed, walked into the hall, and locked the door.

[10] See the paper by Isabel Beck in Part II of this monograph.

December

Tom Flannery wiped a smudge of putty from his wrist with a tattered cloth and plopped into the chair behind his desk. "You and I, Emily—English and art—we're in the same sort of boat in this situation. We're bedeviled by the fact that the arguments for behavioral objectives have a nice sort of logical consistency. And if we don't think very carefully about the outcomes of such a system, we might go along, write a batch of behavioral objectives, teach for them, and feel pretty good about the whole matter." Flannery gazed darkly at his fingernails.

"I don't understand," said Miss Jones. "I thought you were pumping for behavioral objectives. Didn't you say about two weeks ago that they were applicable to art in some important ways?"

"Yes, I did. But that was two weeks ago. I grant that the whole process has been helpful to me. It's helped me sort out my thinking about what it is I want to achieve through art instruction. When I made the statement you refer to, I was thinking about skills. You know. Shaping lines, choosing colors, composing, mixing pigments and vehicles—that sort of thing. Those are very clearly behaviors, and I could judge them. And I could write acres of behavioral objectives for the skills in art."

"But what happened? What changed your mind?"

Flannery smiled self-consciously. "I committed the sin of thinking about the important terminal objectives, what it is that I want kids to be able to do as the ultimate outcome of work in art. And you know what those proved to be?"

Miss Jones asked impatiently, "No, what?"

"Nothing. I couldn't say what the kids were to be able to do ten years from now."

"Oh, come now, Tom. You *must* have some idea what an artistically educated person must be able to do. I'm right now having pretty good luck describing what a person trained in language and literature should be able to do." She looked intently at Flannery to detect some whimsical sign. "You're joking, Tom."

Flannery shook his head, slowly. "No, I had to admit finally that I didn't know. I had to face the absurdity of my present position, teaching kids without any clear idea of what it was that they were to be able to do ten years from now."

He looked intently at Miss Jones. "And you know what? Emily, you don't really know either what people are supposed to be able to do ten years from now."

"Why, I do too. People are going to have to be able to write and speak, to be able to read, to understand literature. All that. What do you mean, I don't know?"

Now Flannery smiled and bent a paper clip into a new form somewhat like a balanced triangle. "You're staying pretty close to skills, aren't you? Your list is skill-centered."

Miss Jones pursed her lips in annoyance.

"Look, Emily. When we state a behavioral objective down the line—the ultimate objective—we're making a value judgment. We're saying that we *know* what the adult of tomorrow is supposed to be able to do. That presumes that what *we* do, or what our model man, perhaps, should be able to do is good and that our description is of virtue accurate. I think it takes a lot of nerve to say that what we've done is so all-fired good.[11] My own view is that things are in a pretty sad mess. We've got aggressiveness and war, materialism and pollution, violence and pestilence, noninvolvement and apathy, selfishness and cupidity . . ."

Miss Jones broke in. "Now, Tom, really. You know as well as I that the schools have not aimed at those things. We've had our goals right, but our failure is that we just haven't known how to get at them properly. I'll admit the world is far from perfect, but it's not because we've lacked a perception about where we ought to go. Surely you realize that."

"In my better moments, yes. But all I'm trying to say is that in our perceptions of where we ought to be leading kids, we're very likely to be working from a model that is ten or fifteen years old. I'm saying we just don't *know* whether our model will work in conditions of the future. I'm saying that if

[11] See the paper by Geoffrey Summerfield in Part II of this monograph.

we freeze our conception and jam every kid into that mould, we may never get out of the perils we're in now, perils that seem to be getting worse by the hour."

"You mean that if we conceive of man in the images we now have, we may get even more mired in problems."

Flannery nodded. "Yes, and because I can't predict or prescribe with certainty, I'm forced to allow an open-endedness about objectives and growth that I'm afraid wouldn't satisfy our systems friend. This is a classic sort of problem. When you analyze present society to find out what you should be teaching kids, you're probably ten years out of date when you begin educating kids for those skills you think they need now. And after ten years, the skills you teach them, the occupations you prepared them for, maybe won't exist. The vocational ed people are in the middle of that box all the time."

"Well, all right. I admit that training for vocations is a problem, but we're not talking about that. We're talking about generalized skills, about understandings, about attitudes."

"Are we?" Flannery asked, though not in a way too calculated to seek an answer. "Even if we were, I'm still not sure that we know what generalized skills, understandings, and attitudes we'll need in ten or fifteen years." Flannery swung out of his chair and leaned against an easel.

"One writer I rather admire has said that 'ecstasy' is the general object for education in the future." [12]

"Ecstasy!" Miss Jones' eyebrows rose.

"Yes. And don't snicker. When you talk about 'turning kids on' you're in that same ballpark. Maybe joy in learning, or self-actualizing. But, in general, learning the skills which will be needed for survival in 1980."

"Such as?"

"Such as learning the basic skills joyfully and yet knowing that facts are, at best, tentative. But more to his point, to learn not only what is current but how to manipulate and change that which is current, to 'learn delight, not aggression; sharing, not eager acquisition; uniqueness, not narrow competition'; to learn to have increased awareness and responsiveness to other people; to be joyously prepared for a life of increasing and unending change. And, furthermore—this will really startle you, Emily—the youngster will have to be prepared for lifelong learning, for in the future learning and living will be synonymous. Maybe what I'm saying is that kids'll have to learn to break out of systems and create their own."

[12] George B. Leonard, *Education and Ecstasy* (New York: The Delacorte Press, 1968).

"Sounds pretty woolly to me, Tom. I suppose my immediate reaction is that it's not very practical either."

"That's our hangup, Emily. Our practicality may be spurious. We've shown ourselves very practical in waging war and bulldozing other people into thinking our materialism is the proper mode of life forevermore. How confident can we be that our practicality leads to fruitful outcomes?"

"Gee, Tom. You sound like a gloomy philosopher today." Miss Jones tried bantering to relieve the tension.

Flannery smiled faintly. "Emily, curriculum decisions of the type we're talking about *are* philosophical. We've been told we must have an end objective in view, but I don't have much confidence in last year's model."

"But if we don't have an end objective to shoot for, then how can we shape a curriculum?"

"I don't know, and that's why I'm saying we have to be pretty open-ended. The free student who finds and seeks his own objectives may have to *be* our objective. He has to learn to learn and like to learn. That will be his way of dealing with unknowns that we can't even predict for him."

"You can't build a curriculum on that basis, Tom. The parents would skin us alive, and when the kids found out, they'd feel betrayed."

"Well, Emily, I don't know about the parents, but the kids would be betrayed by something that doesn't prepare them for 1985. We've been hearing people prattling about change as the big news for more than a decade. It doesn't seem to me that any analysis of present-day life is going to yield the answers about life in 1985. And that's what the systems people are asking: What do people do *now*? And that's supposed to provide answers for 1985? You'll have to admit that's pretty illogical."

"Well, I don't know. I don't know. If I follow your logic, then we have to decide somehow what life is going to be like in 1985 and then decide what skills and attitudes people will need at that time. Then we plan the curriculum to produce that kind of people. I . . . well, I just don't feel qualified."

"I'm sure nobody does. The crystal ball went out with Merlin, and predictions about the shape of life in 1985 could be seriously askew. That's why I think we have to have some informed guessing about objectives for 1985 and then shoot for those goals, but with a large part of our effort devoted to helping the kids to shape their own objectives. They're the ones who'll have to take over the driver's seat about 1980, and they'd better be plenty flexible, as far as I can tell."

Miss Jones stood up. "I've got to get to class, Tom. But I'm curious about

what all this means. We're all supposed to come up with behavioral objectives in rough form by the end of the month. What are you going to do?"

Flannery sighed and threw the paper clip into his wastebasket. "I don't know yet. I've got some reading to do. Some of the answers might lie in the Dixon book you lent me,[13] and I've got several from my own field. Oddly, there's an old-timer, John Dewey's *Art as Experience,* that has some important things to say about 1985." [14]

"Well, keep me informed. You may need some backup on the day of reckoning at the end of the month. I may not agree with what you say, Mr. Flannery, but I'll defend to the death your right to say it."

"Say, that's a good line, Miss Jones. You ought to copyright it."

Miss Jones smiled, laughed a little, and left.

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[13] John Dixon, *Growth through English* (Reading, England: National Association for the Teaching of English, 1967).

[14] (New York: G. P. Putnam's Sons, 1934).

January

A steady drizzle and fog obscured the empty football field as Miss Jones and Mr. McNemar sat down at the conference table at the back of the classroom.

"Yes, I quite agree with Mr. Flannery," Mr. McNemar began. "We have to be quite careful that we don't lock education too closely onto the past. And I also agree that a considerable part of the education of the student has to be the development of his capacity to make decisions about himself and about his curriculum. John Flanagan has described just this sort of system which, though based on behavioral objectives and constructed in modules, nonetheless puts quite a bit of the burden of decision-making on the student himself." [15]

"I gather that you mean that one of the major behavioral objectives is that the student have a developed skill in making decisions about learning based on data available to him. That the decisions are not all made by teachers and systems people. Is that about right?"

"Yes," said Mr. McNemar. "Decidedly."

"Well, that seems reassuring. In other words, there's quite a bit of choice in such a system. The usual objection I hear to programed instruction based on behavioral objectives is that the only thing that is varied is the pace—that is, the rate that students proceed through it."

"I think that's a fair criticism. At least it's a fair criticism of programs that were popularly tried four or five years ago. Today, the notion of alternate studies and alternate paths to attainment of objectives are receiving much more attention than they were a few years ago. We have to keep in mind that programed learning is a relatively recent development. It has growing pains and problems of naivete and crudeness."

[15] See Flanagan's paper in Part II of this monograph.

Miss Jones frowned. "I appreciate your saying that because it gives me a chance to say something that's been bothering me. It's just this. The background behind behavioral objectives is an approach where there seems to be a great dependence on individualized study of programed instruction. Yet programed instruction is at an admittedly crude stage of development. Furthermore, there are really very few programs available and, frankly, I'm not very encouraged by the quality of those I've seen. When I've tried programed instruction, there's an initial enthusiasm; and then, after a while, I begin to get groans. Tedium and boredom set in. And pretty soon I have to drive the kids to use the material."

"Yes," Mr. McNemar responded. "There are those sorts of problems. But as I say, the field of programed instruction is regrouping and doing better, though there's a long way to go yet. What I think we have to focus on is that there is no *necessary* connection between behavioral objectives and programed instruction. In the present stage of growth of the systems movement, the task is one of seeking clarity of objectives so that good programing, really good programing, can be developed. In the meanwhile, individualized instruction can take many forms. From what you've told me, you do quite a bit of individualizing of instruction right now."

Miss Jones gazed at him somewhat abstractedly. "How so?"

"Well, for example, in your eleventh-grade unit on "The American West" you don't have all students reading the same books. You vary the assignment according to interest, to reading level, to the sophistication of the student, and so forth."

"Oh," Miss Jones laughed softly. "I've always done that. I don't speak of it as individualizing the curriculum. But I guess that's what it is."

Mr. McNemar smiled. "And you vary the composition assignments; your students have quite a bit of latitude in selecting their topics. Furthermore, your laboratory work in composition has you working with students whom you group according to individual needs. Your work in spelling and other skills is based on your analysis of student papers. Your program of outside reading is highly individualized, and the reporting system uses not one but a dozen modes whereby the student can report to you and others about his reading. So, you see you do a great deal of individualizing already."

Miss Jones laughed. "Oh, come Mr. McNemar. You're just trying to beat down my resistance. Now, sir," she smiled. "Flattery will get you nowhere."

McNemar chuckled. "Ah, Miss Jones. You caught me. But no, not really. I just wanted to point out that it's not necessarily programed instruction that's

behind behavioral objectives, but individualized instruction is. All that the objectives do is specify what it is in concrete terms that you want to do and, further, to give you criteria checks to determine when you've accomplished your objective. It helps for the student to know, too."

Miss Jones rubbed her chin for a moment. "All right, Mr. McNemar. Let's let the question of classroom practice go for the moment and get back to the question of measurement of objectives. Last time we talked, we decided we'd try to define the phrase 'appreciates literature' in behavioral terms. What progress did you make?"

Mr. McNemar reached into his briefcase for a slim booklet. "I tried to apply some of the ideas in Mager's *Developing Attitude toward Learning*.[16] Have you read it?"

"No. What's it say?"

"Essentially, it says that one of the subject matter teacher's main objectives is to produce 'approach' behavior in his students. This means that as a consequence of instruction in, say, history, the student will approach history materials rather than avoid them."

"You mean the student won't end up hating the subject?"

"Yes," McNemar nodded. "That's about it."

"Well, I guess we could go for that objective. The phrase 'I hate English' is widespread in the society." She tapped her fingers on the table for a moment. "But that's a funny objective."

"What do you mean?" McNemar waited.

"I mean it would be all very nice if the kids left us feeling good about our subject. I know we'd feel good. We all like to be popular. But . . . but I don't see what sort of terminal objective it refers to. I mean, do we really want nothing more than everybody running around saying 'I like English'? That seems to be nothing more than chucking the English teacher under the chin. There are all sorts of quackery one can use to make students like the subject. You know: fun and games and a little bit of spelling."

Mr. McNemar frowned. "Don't you think that's a little extreme? After all, what are we talking about? 'Appreciates literature' is nothing more than saying that the student, when faced with literature, will approach it, rather than avoid it."

"Oh, come now, Mr. McNemar. Surely you're joking."

"Not at all. I'm pretty sure that your objective is to do something which will assure that in life, after school is over, your students will continue to

[16] Robert Mager, (Palo Alto: Fearon Publishers, Inc., 1962).

gravitate to literature of merit, or, at the least, continue to read so that literature will lead them to quality."

"Well, if you put it that way, I agree. But to call it 'approach behavior,' really!"

"The term is Mager's, not mine. But let's not quarrel about semantics. I have to grant that in the literature, some of the verbiage surrounding behavioral objectives requires some adjusting to." McNemar paused to pull a paper from his briefcase.

"All right," said Miss Jones. "Let's accept 'approach behavior' for the moment. We want the student to continue to approach literature ten, fifteen, twenty years from now. How are we supposed to measure that? How are we to gauge whether we've met that objective?"

"You can't, not those behaviors. As Hoetker points out, you have to settle for indicators or approximations of the terminal behavior. The indicators can be observed while the student is still in school." [17]

"I guess that's no different than what we do now. Only I guess we just hope."

"Well, not really, Miss Jones. You now do some measuring of approximations. For example, you yourself give your students wide latitude in their choice of reading. Your records of what they read give you pretty accurate data for judging what they will read later on. You can assume that you've done something to produce an orientation toward works of quality."

Miss Jones reflected a moment. "I wish that were true. But, for example, Jennifer in my fourth hour class. I'd say her tastes in literature are shaped by her home situation, a particularly richly cultured one. We do nothing here but applaud and give her access to our library. We can take little credit for that."

"Oh, but Miss Jones, you can. You're at least not doing anything to *prevent* the growth of that tendency to good reading. And that's creditable. But let's admit that Jennifer is an exceptional case. For practically all other students, the work of you and your faculty is probably the only force disposing students toward a lifelong contact with literature. You want to bring this about; it's important to you; and you'd probably like to do a better job than you now do. Right?"

"Yes, I think that's a very central objective of ours."

"Let's think about this list I've sketched of behaviors which approximate the terminal objective, a person who appreciates literature. I've merely

[17] See Hoetker's paper in Part II of this monograph.

stated here what it is that such a person does. He may not do all of these things, but he'll do many of them.

1. He reads at least one book a month.
2. He holds a library card.
3. He owns a personal library which includes works of literature.
4. He reads book reviews in the Sunday newspaper.
5. He engages in discussions of current books with neighbors, coworkers, and others.
6. One-fourth of his leisure time is given over to reading books or articles about books.

Well, there are several more here, some of them having to do with literature in other forms—plays, films, and so forth. Please understand, I don't offer this as a definitive list. English is your field, not mine. But these are behaviors which seem to me reasonable as *parts* of the definition of one who appreciates literature."

"Mr. McNemar. It's more than possible that a person who does the things you have in your list may not like literature at all."

"I beg pardon?"

"He may be doing all those things because they're socially acceptable or even because he thinks that somehow behaving in the ways you've listed will gain him some sort of veneer of culture, so he'll *look* like one who appreciates literature. He could actually *dis*like literature."

"Remember, Miss Jones. We're talking about terminal behaviors, the ones which occur when the individual has left school. No one is marking him. He's under no compulsion to do these things. I don't understand how you can reject this list of indicators."

"I don't reject them. I merely have doubts about them as reliable indicators. I'm just pointing out that we could be fooled quite easily by a socially compulsive person who is not ashamed to flim-flam others. I'm saying we still would not know that that person enjoys literature, that he appreciates it. I'm saying that conclusions you draw simply from watching behavior can be quite misleading."

"Aren't you nitpicking?"

"Mr. McNemar you've come here from the field of science which says that fuzziness in observation is unforgivable. Yet any observation has to be partially deficient because of the bias of the observer, even the bias of the scientific instrument chosen to record the wiggles of an amoeba. I'm suggesting that

the objectivity of the observer of a behavior is spurious; there is no such thing as objectivity in the scheme you propose for describing and evaluating human behaviors." [18]

McNemar looked at Miss Jones steadily for several moments. "That's a very technical point, Miss Jones. I wasn't expecting that you'd bring it up. Do you think it nullifies the idea that the behaviors of the adult who appreciates literature can be observed and be indicators of his appreciation?"

Miss Jones paused. "I don't know. I just know that I have to be dubious about claims of the objectivity of the scientist when people look at people."

Mr. McNemar smiled. "Keep pushing me, Miss Jones. Keep pushing me. That's the way I learn."

"All right. Then let me push this idea. Given the acceptability of your list of behaviors as indicators of the person who appreciates literature, we have to return to the question of what we do when kids are in school, the time when we are able to measure their movement toward the terminal objectives. What do we do to measure appreciation?"

"O.K. Let's try a few. We've already discussed the records you have on what students are doing in your extended reading program. You do require a certain minimum number of books to be read, and the number read above and beyond that number can also be an indicator of what you've done to foster an approach to literature."

"Only a partial indicator, for, as in the case of Jennifer, other factors enter in. Sex for one; boys are not as inclined as girls to read, and they appear to have less time for reading. But all right. Let's take numbers of books read above the minimum to be one indicator."

"A real test," continued Mr. McNemar, "would involve a free situation. Let's phrase it this way. Given a work by Dumas, a copy of *Sports Illustrated*, and a cassette recorder with popular music, the student who appreciates literature will take up the work by Dumas. Now, would that be a fair test?"

"I'd say it would be the acid test. Could you pick something a little more relevant than Dumas? How about James Baldwin? In paperback."

"All right. You're the expert. Baldwin. Would you accept the test as an indicator?"

"Yes and no. I see what you're driving at. That given a set of alternatives, the student will gravitate to the one which has given him substantial pleasure and satisfaction. If the program has done that, then he would tend to turn to literature. He would approach it."

[18] See the papers by James Moffett and Donald Seybold in Part II of this monograph.

"Exactly." Mr. McNemar waited, sensing a further statement.

"On a theoretical level, I suppose, the test makes sense. But let's look at things sensibly. I have 100 youngsters each day, and others have 150. I do not have the means for such testing. If I were to apply such tests for dozens of objectives we've already written in the department, I'd have to give up teaching and devote myself to testing.[19] Or I'd have to have another teacher to help me get such testing done. I hate to argue on grounds of practicality, but such testing isn't practical."

"You don't strike me as the type of person who is opposed to testing, to knowing where you are."

"I'm not, but from what I see now, I suspect that for what you're proposing, the classroom will be turned upside down. We'll spend the bulk of our time testing and the minor part in facilitating learning. Right now I spend too much time testing, keeping records, badgering kids about their assignments, reading papers, and a host of other silly things to make the student's learning visible—all for the sake of grades. I have enough doubts about the utility of grades without adding to the difficulty."

"Please understand, Miss Jones. I'm not arguing for grades. They don't make sense to me on any grounds. I'm talking about ways of helping students know when they have attained objectives, not getting numbers in a grade book."

"The matter of grades, Mr. McNemar, brings out another worry I have about behavioral objectives."

"What's that?"

"That they'll tend to lock us into the things we do now, to blunt our experimentation. If we find good ways to accomplish objectives, and those techniques get locked into the language of the objectives, we'll tend not to change those techniques for others."

"Ah, good. Yes. That's a real concern. I saw one the other day that bothered me. It was something like this: 'Given instruction through the Level Sixteen unit of the Marsden program, the student will be able to state the main causes, events, and outcomes of the Crimean War.' The problem with that objective is that it's not a behavioral objective; it's really an excessively specific instructional objective. We musn't build our programs on instructional objectives. Those are temporary, tentative, perhaps one-shot events. The thing that abides over time must be more general.[20] To lock a behavioral

[19] See the paper by James Moffett in Part II of this monograph.

[20] See the papers by James Hoetker and J. N. Hook in Part II of this monograph.

objective into a specific activity or learning material is a serious mistake."

"You're saying that instructional objectives, then, derive from behavioral objectives."

"Yes. And behavioral objectives derive from what might be called educational objectives which are often relatively abstract, perhaps not even described as behaviors."

Miss Jones sighed. "That's a little naive, Mr. McNemar. Teachers operate under a great deal of pressure. They're constantly looking for practical tools. If they find something that works, they'll hang on to it and repeat it. If the Marsden material works to produce a result, that'll be it for quite a while. It's just human nature to keep on doing things that are successful. And that's what I mean. We'll get frozen into our present habits."

"Well, Miss Jones. That's a real problem, one that must be guarded against. The whole idea of systems is a continuing examination of better and better ways of getting at our objectives. Focusing on a limited set of activities and materials is antithetical to the systems idea."

Miss Jones stretched her arms forward, yawned surreptitiously, and glanced at the classroom clock. "Well, Mr. McNemar. I guess this ends our conversations for a while. I've already taken too much of your time."

"It's been my pleasure." He paused. "Do you feel ready now to write objectives for the English program?"

"Yes and no, like with most things. I know we can write low level objectives; we've already done it. And I think we can go beyond that. For example, in a seventh grade literature unit with the theme, say, 'On Being Different,' we could write an objective like this." Miss Jones glanced at some notes on her desk. "After reading Alexander Key's novel, *The Forgotten Door,* the student will be able to demonstrate his understanding that people who are different are persecuted in our society by others who are suspicious, malicious, or frightened. He will demonstrate this by writing a paper in which he discusses the phenomenon, making reference to four characters and situations in the novel."

McNemar leaned forward. "That's very good. We'd want to wrestle with the language here and there, but you're getting at some very important skills and understandings. Would there be other means of demonstrating his understanding?"

Miss Jones turned the paper over. "Yes, he might also demonstrate understanding by contributing successfully in a panel discussion, writing and pro-

ducing a skit, making a montage of magazine picture cutouts, or even shooting a Super-8 movie."

"Very interesting. I'm pleased. That shows real imagination." Mr. McNemar's smile faded as he looked expectantly toward Emily Jones.

"But it misses the point, Mr. McNemar. The fact that he has reached whatever objective *we* have set does not mean that after he has left school he will behave in a certain way. It doesn't mean that he will, for example, become involved in relieving human suffering, in seeking justice for oppressed people, in contesting bigotry. These cannot be measured while he is with us, and these objectives will make a difference in the kind of life that he lives." [21]

"But surely, Miss Jones . . ."

"It is this difficult part that troubles me, and it troubles others. Mr. Sloan and Mrs. Hathaway are so troubled that they've decided to protest to the school board about the damage that might be done. They're scared to death of what we'll lose."

"And you?"

"Me? I'm an optimist, I suppose. And I've been around long enough to know we haven't been terribly successful in meeting our objectives. I doubt the behavioral objectives approach will do much harm. If they help us think more clearly about what we're trying to do, they might help. Maybe they're like spinach."

"Spinach?"

"Yes," Miss Jones smiled. "I tell my nephews: 'If you haven't tried spinach, don't knock it.' Maybe behavioral objectives are like spinach; not very palatable but possibly nourishing."

"Miss Jones, I'm sure that you'll put enough spice in the spinach to make it very palatable."

She smiled and shook hands with him. "We'll see. Thanks for coming, Mr. McNemar. We'll keep in touch. As I see it, I—we, all of us—have a lot of thinking and a lot of work to do. Thanks again."

When McNemar had gone, Miss Jones gathered a set of papers for her evening's work and glanced at her lesson plans for the next day. She mused to herself, "I think I'll modify my behavior." She put the set of papers aside and slipped a paperback novel from her desk to her purse. "Can't be efficient all the time, Emily." She chuckled as she switched off the lights.

[21] See the paper by Robert F. Hogan in Part II of this monograph.

Part II

Eleven papers on behavioral objectives, including six from a special conference on that subject, held at the Washington convention of the National Council of Teachers of English, November 1969.

The author discusses USOE support of development and evaluation of the "organic curriculum," which is aimed at providing every student with a salable skill. To acquire this skill, the student is to be paced through curricula based on sequences of behavioral objectives. A recent progress report of this nation-wide experiment, beyond the scope of the present paper, is made in articles by David Bushnell, James Popham, and Lewis Rhodes in Phi Delta Kappan, *December 1969, pp. 199-210.*

The Federal View of Behavioral Objectives

SUE M. BRETT

There really is no federal view of behavioral objectives. The Office of Education has never issued a policy statement on this subject and probably never will, for school curriculum is not a matter for national policy. Selection of a style of curriculum is the right and the responsibility of the local school district only. There are views, however, diverse views, among federal employees, and some of these views have appeared in print. Later I will quote from a few of them.

But federal view or no federal view, at this moment the Office of Education is up to its ears in behavioral objectives. It is supporting the development of objectives in office and business education, objectives in citizenship education, objectives in biology, objectives in English, and objectives in all subjects in the curriculum for one school system. At this point, unhappily, the money has given out. However, the Office is also supporting the establishment of a bank for objectives, where objectives from all sources in all subjects may be deposited, then duplicated and mailed out to schools on order. In addition to all this, it is supporting a study of how behavioral objectives can be used to bring optimum returns. So even without a federal view, there is certainly federal involvement, and it is possible that when more money comes, other objectives will not be far behind.

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Indeed, objectives for the past year have held a priority rank, which they achieved by very reasonable steps. When Harold Howe II was commissioner of education, he proposed to help education take advantage of the new developments in technology. For this purpose and others, he persuaded R. Louis Bright to leave Westinghouse and come to Washington to head the Bureau of Research. Bright agreed with others in the Bureau that, in all likelihood, greater impact upon education could be made by large organized programs of research than by the usual unsolicited small projects. He was, of course, committed to promotion of the use of technology in education, and he respected industry's new program planning technique known as the Program Evaluation and Review Technique—PERT, for short. (To the unseasoned handler of business techniques, this new technique looks, on paper, exactly like a commonplace flow chart of operations.)

It happened that when Bright had become settled in his office, and his biases had become known, there appeared on his desk one day a proposal for action tailored precisely to his taste: it was a major organized effort to update the American high school. It embraced a computer-mediated curriculum, and the whole effort was to be laid out by industry's technique, the PERT chart. (The layout is known also as the systems approach and is much concerned with such things as specifications, inputs and outputs, and time and cost factors.) This major organized effort was called the organic curriculum. It had been drawn up by the Division of Vocational Education Research. To the organic curriculum we must give the credit for boosting behavioral objectives into their priority status in Office of Education research.

Though a closer look at the organic curriculum may not be essential to this discussion, for some of us it may broaden the base of understanding from which we condone or condemn our concern here with behavioral objectives. So let's take a brief review.

The overall purpose of the organic curriculum is to construct a model of a high school for the future. The underlying assumption is that present-day education is already out of date in both offerings and methods, and that significant updating is a major effort, a longtime process, and a very expensive undertaking. In order to accomplish it at all, the plans must make sense, not only to educators but to taxpayers in general, and enough lead time must be allowed for completion, testing, and revision of the experiment before it is offered as a model to the public. The mid-1970's was set as a target date for this work to be completed.

The curriculum, as projected and PERT charted, will provide a truly

comprehensive education for each student. In this context, the term *comprehensive education* is conceived to be a developmental sequence of experiences that qualify a student at graduation to select among four choices what his next course of action will be. He will have the qualifications to enter a four-year college, or a community college, or a technical school, or the world of work. He will be equipped with a salable skill and with abilities that will enable him to shift easily from one job to another. Though the target population of this curriculum is the entire enrollment of a high school, the principal concern is for the students who will not graduate from college. Hence the emphasis on the salable skill.

The curriculum is spoken of as "learner-centered"—a familiar term, for which teachers have had a friendly regard for many years. In this context, *learner-centered* signifies individualized instruction and a custom-made curriculum for each student. As you have guessed, the tailoring will be done by the computer, which will track and guide the student, task by task. The individual pacing will be made possible by an abundance of instructional materials, some with hardware and some without.

The personalized curriculums and paces are expected to be highly motivating and to reduce drastically both the dropout rate and discipline problems. Part-time jobs and work-study projects will also contribute toward these effects.

The success of the curriculum will be judged on the basis of student progress toward predetermined behavioral objectives. The hope is that the testing can have such a high validity and reliability that reports can be made to the public of the educational value and the cost of individual components of the curriculum. For instance, a board of education may find in the superintendent's report a statement such as the following: "The voice and diction improvement program, using electronic laboratory tape cartridges, has cost $10,000 this year. It has served 800 students, 80 percent of whom have shown marked improvement in their voice quality and diction. Data sheets supporting this conclusion are attached." On this information the board determines whether voice and diction will be given continued support. And herein, in the organic curriculum at least, lies the major importance of behavioral objectives.

It is interesting to note that here again is the concept of schools as industrial plants. In the early years of this century, as you remember (from your history of education textbook, of course), industry cast the figure of education in its own image—school administrators were management, teachers were labor, and processed pupils were the product. Now schools are adopting

industry's new technique to plan, implement, evaluate, and calculate profits, as if a high school graduate were a manufactured product. The question is, to what extent is the analogy useful? By the PERT approach, administrators and teachers would meet stated personal and educational specifications. But administrators and teachers cannot be sized to specifications as a piece of lumber can, and few will fit the demands. Compromises must be made. Indeed, compromises may have to be made all along the system, simply because pupils are people as well as raw materials, and their reactions to processing sometimes surprise us.

To what extent the organic curriculum, or any similar program, can improve education, of course no one knows. It has never been adequately tested. Adequate testing is very expensive, involving the cost of computer services and the careful development of multi-media teaching modules for all subjects. But adequate testing is what the organic curriculum proposes to do—if the money can be found for it.

Now back to the subject of the federal view of behavioral objectives. Though there is no federal view, there have been some strongly supporting statements by high-ranking Office of Education officials, as follows.

The first voice is that of Robert M. Morgan, who was an energetic promotor of the organic curriculum. The quotation is from an article that appeared in *Trend* in 1968.

> The first step in applying a systems approach involves the rather specific definition of what outcomes or results are desired. It is against these specifications that the system, whether space ship or educational program, is to be built. . . .
>
> For goals to become purposeful in a design of a new system they must be defined in terms of behavioral outcomes, which would facilitate measurement of achievement. . . . Another reason for needing behavioral objectives is that the taxpayer will grow weary of increased taxation for educational funds with no tangible evidence of the effect these funds have on the education of his children. With behavioral objectives, it should be possible to associate behavioral change with program cost.

Next is Louis Bright, associate commissioner, head of the Bureau of Research in 1968. He reviewed the Bureau, past, present, and future, at the request of the commissioner:

> To improve the quality of education, I think that we should start looking at the affective domain as well as the cognitive and make stated objectives available to the schools along with structured ways of attaining them. Historically, when we have talked about curriculum we have always seemed to be talking in general terms about the three R's. I think we should talk now about specific stated ob-

jectives and should structure the interaction of students toward achieving them, rather than just assuming that if you have a teacher talking to students these objectives will obtain. They won't.

The next voice is Henrik Gideonse, director of program planning and evaluation, Bureau of Research. Gideonse replies to an article on behavioral objectives written by J. Myron Atkin and published in *The Science Teacher,* 1968. He speaks first on what we *should mean* by behavioral objectives:

> What we *should* mean by behavioral objectives is not so much the ends we are trying to achieve, as performance indices that we would accept as evidence that we have achieved the objectives toward which the curricular experiences were aimed.

On the need for specificity of educational outcomes:

> Educators need to pay much more attention to exactly what they hope they are achieving and how they are assessing what they are achieving. Behavioral indicators of progress can lead us to much more explicit and justifiable formulations for what we do with school children and why we do it, and how we evaluate whether our intentions are indeed being met.

In a compliment to Aiken, Gideonse makes an important point that has almost but not quite come up for discussion here:

> [Aiken] points out that the total effects of instructional programs and curricular offerings are always much broader than the outcomes which are specifically being sought. That is an important point to keep squarely before us whether we are writing behavioral objectives or performance specifications, or just muddling through.

This final statement was made by Commissioner James E. Allen, Jr., in his speech, "The Right to Read," Chicago, October 3, 1969:

> We have dealt with the public in terms which, while reflecting worthy programs, too often have little meaning for the average citizen—compensatory education, team teaching, individualized instruction, etc. We have been, in some instances, defensive, vague, and even secretive about the results of our programs. We have pleaded and cajoled for maximum support for everything in our schools from marching bands to advanced placement mathematics with too little acknowledgement sometimes of what is essential versus what is desirable. I believe we have been expecting too much of our publics and proving too little. I hear a message from across the country which impresses me with one fact: our communities are becoming more concerned with results than they are with offerings and good intent.

The attitudes I have presented are the best indication we have of what a federal view of behavioral objectives would be, *if* there were a federal view.

Asserting that dogged insistence on "a priori specification of all objectives in terms of conveniently observable behaviors does far more harm than good," Hoetker sets down specific guidelines for writing behavioral objectives that go beyond the "can-do" variety. He sheds light on what might be termed acceptable post-instructional behaviors. The writer makes a distinction between the behaviorist, *a psychological theoretician, and the* behavioralist, *a social scientist who restricts his attention to observable phenomena.*

Limitations and Advantages of Behavioral Objectives in the Arts and Humanities

JAMES HOETKER

There are three sorts of behaviors that educators are concerned with. I am going to call these "can-do" behaviors, "may-do" behaviors, and "will-do" behaviors. "Can-do" behaviors are those specific things that a student can do at the end of a particular unit of his education that he could not do at the beginning of it; in terms of Bloom's *Taxonomy*, the "can-do" behaviors include knowledge, comprehension, and the application of knowledge in familiar situations. "May-do" behaviors are things a student may be able to do in a novel or unfamiliar situation because he has mastered certain "can-do" behaviors. These would include, among cognitive behaviors, the application of abstractions in novel situations, analysis, synthesis, and evaluation; plus, among affective behaviors, attending, responding, valuing, and, in some cases, organizing. "Will-do" behaviors are the choices and preferences that describe the quality of an adult's life, and which are present only fractionally during the school years. The affective *Taxonomy* refers to "will-do" behaviors as "characterization by a value or a value complex." [1]

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[1] The *Taxonomy* referred to is *Taxonomy of Educational Objectives: The Classification of Educational Goals;* Benjamin S. Bloom, *Handbook I: Cognitive Domain* (New York: David McKay Company, Inc., 1956); David R. Krathwohl, Benjamin S. Bloom, Bertram B. Masia, *Handbook II: Affective Domain* (1964).

Traditional education is concerned with "can-do" behaviors—skills and knowledge. Progressive or radical educators are more concerned with "may-do" behaviors. But all educators profess to believe that the can-do and may-do behaviors they shape from day to day lead to the development of desirable patterns of will-do behaviors—patterns which describe good citizens, free men, cultured gentlemen, or whatever.

Unfortunately, will-do behaviors are, by definition, exhibited in times and places far removed from the training situation, so teachers seldom know whether their efforts have borne fruit. These elements of time and distance also make it unlikely that behavioral scientists will ever be able to establish empirical relationships between particular can-do or may-do behaviors and particular patterns of will-do behaviors.

Let me coin the term "specificationist" to refer to the behavioralist who advocates the specification of educational objectives in behavioral terms. And let me suggest that responsible specificationists acknowledge their inability to deal with will-do behaviors and are simply saying to educators something like the following: "I will accept, in the absence of any contradictory evidence, that you know what you are talking about when you say that studying literature and art makes a person somehow better. But what you do in your classroom is to expose students to certain experiences and have them learn special skills, memorize great numbers of facts, and perform certain operations. Let us assume you are correct that these experiences and mastery of these tasks leads to the development of the will-do behaviors that you desire. Then it follows that shaping the can-do and may-do behaviors more effectively will make the acquisition of the desired will-do behaviors more likely. If you can carefully describe for me the behaviors you are trying to shape, maybe I can help you to evaluate more precisely your success as a teacher and help you to find the most effective methods of instruction."

As a reasonable specificationist, I believe that our educational practices can be improved if teachers and administrators and curriculum writers begin to think about their work in terms of changes in student behaviors. But, as a humanist, I also think that simple-minded insistence upon the *a priori* specification of all objectives in terms of conveniently observable behaviors does far more harm than good.

The sad fact is that not all specificationists are reasonable. It is inevitable that specificationism has had its share of converts who can do nothing with ideas except turn them into slogans, passwords, and shibboleths. And these sloganeering specificationists, I am afraid, are responsible for much of the

hostility that exists among humanistic educators to the idea of behavioral specification.

At their all-too-frequent worst, these troublesome zealots are like the man in the old "Twilight Zone" episode who found himself mysteriously transported back to a small midwestern town in 1910. "Wow," says the man, looking around, "with my knowledge of modern technology, I can really take over back here." The man goes to a machine shop where two brothers are handcrafting a car. "O.K., guys," the man says, "I have a million dollar idea for you. The electric starter for the automobile." The men, of course, are interested. "Great. Give us the blueprints and we'll get right to work." "Blueprints?" says the man, "I'm a thinker, not a mechanic. I've given you an idea that will make you rich. You clods make it work, and I'll sell it."

For some reason, the brothers did not appreciate the man's offer of riches, and they ordered him out of the shop. Teachers in general, though some have found trying to write behavioral objectives an enlightening exercise, have ushered specificationist advisers out of their shops, and for the same reasons.[2]

So maybe the first question to be dealt with is this: Why has the insistence upon behavioral objectives continued to grow more urgent? Some years ago, Elliot Eisner tried to answer this question by tracing the concern with microscopic specifications of objectives back fifty years to the "scientific movement in education" and to Franklin Bobbitt, "the father of curriculum theory."[3] One

[2] Several years ago Alan Engelsman and I began work on some drama curriculum materials by spending two weeks with a group of thirty English and drama teachers, trying to discover what they wanted, needed, and would accept. Most of the teachers had had an exposure to specificationism, either in college courses or in summer curriculum workshops. Their hostility to specificationism and to its avatars, Bloom's *Taxonomy* and programed textbooks, was unanimous, absolute, and unshakable. At the root of this hostility seemed to be the common experience that the presenters of specificationism were arrogant, badly educated, and clearly of the opinion that anyone who could not sit down and write behavioral objectives for his discipline was a fraud and an incompetent. Accepting the experiences and attitudes of these teachers as representative, we were careful in writing our materials to avoid the jargon of specificationism and programed learning. Our experience has been that behavioral specifications of objectives, presented within the context of a particular sequence of work, and without the jargon, are accepted as self-evidently useful by teachers who would be turned off at once by an abstract presentation of specificationist doctrines.

[3] "Franklin Bobbitt and the 'Science' of Curriculum Making," *The School Review*, 75 (Spring 1967), 29-47. An article by Eisner in a later issue of *School Review* is perhaps the best exposition of the humanist's objections to specificationism: "Educational Objectives, Help or Hindrance," *School Review* 75 (Autumn 1967), 250-260. Eisner's article is followed by a number of commentaries (*loc. cit.*, pp. 261-281), most of which attack Eisner's remarks. The most telling criticism of Eisner in these commentaries is that he

of Bobbitt's disciples, he reported, identified 1,581 social objectives for English before he ran out of steam.[4]

The early specificationist zeal lapsed during the progressivist thirties, when concern was more for processes than for singular objectives. Then, according to Eisner, specificationism was revived in the late forties and early fifties by such influential writers as Benjamin Bloom, Ralph Tyler, and Virgil Herrick. But Eisner's interesting history does little to explain why specificationism has become ascendant.

Ray Callahan has shown how the "scientific movement in education" was one manifestation of a broad social movement, originating in industry, toward efficiency, rationalization, and human engineering.[5]

In the same way, the contemporary rage for specificationism in education is part of the new order ushered in with the resurrection of the turn-of-the-century efficiency expert in the guise of the systems analyst. Abetted by the computer revolution, systems analysis and cost effectiveness procedures were first developed and applied in the armed services and in defense industries. And specificationism has come into its own as systems analysis concepts have been more and more widely applied in civilian institutions.[6] The influence of the systems analysts upon public education has been exercised primarily through the U.S. Office of Education, in the interests of evaluation, efficiency and accountability; and through the more prestigious graduate schools of education, in the interests of rigor in research and efficiency in school administration.

Now the point has been made well and often that democratic civilian institutions are so much more complex than autocratic military institutions that systems analysis procedures are not applicable to the management of civilian enterprises—unless, of course, the civilian enterprises are restructured to meet the needs of the systems analysts.[7] Similarly, it can be argued that the education of a human child is an infinitely more complex task than the management

misrepresents specificationism by considering only its most extreme and dogmatic pronouncements.

[4] Eisner, "Educational Objectives," p. 252.

[5] *Education and the Cult of Efficiency* (Chicago: University of Chicago Press, 1962).

[6] The first applications of systems analysis in education took place in the military, and it is probably more than an accident that the educational ideal of some specificationists seems to be the military classroom, with its ironbound curriculum, its stereotyped procedures for attaining narrow objectives, its interchangeable and volitionless instructors, and its standardized proficiency tests.

[7] See, especially, Antony Oettinger and Sema Marks, *Run, Computer, Run* (Cambridge, Mass.: Harvard University Press, 1969).

of an institution; and that the specificationist's doctrines, in their extreme form, can be applied to the management of an education only if "education" is narrowly enough defined for specificationism to deal with it. Such a redefinition is currently being urged by influential and powerful voices in education; and the net result of the specificationist movement may conceivably be to exaggerate the most grotesque features of existing American schools—standardization, rigidity, regimentation, and authoritarianism.

But this is not necessarily what must happen. Liberal education is vulnerable to attack from the specificationists primarily because humanists and artists have not paid enough attention to behaviors and have ignored the relationships between ends and means. Humanist attacks upon the specificationists may be rousing and witty and satisfying, but they are too often snobbish and self-serving, too ofter empirically ungrounded, too often attacks upon "science" rather than arguments to the issues.

My contention is that the adoption of a behavioralist stance in regard to the content and processes of a liberal education can help us to rid the schools of their worst evils and to improve the quality of education. I am arguing that the specificationists have a better way of talking about the instructional process than the humanists have had, and that the humanists would be foolish not to try to understand the specificationist way of thinking, so that they can put specificationist technology to use in strengthening the humanist position. And I am arguing that this can be done without anyone's having to subscribe to a mechanistic reductionism or involve himself in a lot of metaphysical foolishness. Europeans, after all, borrowed gunpowder from the Chinese without becoming Buddhists; the Greeks began to use the Phoenicians' alphabet without abandoning the Olympian gods.

Let me suggest two ways that humanists can use the specificationist's insights to improve education in liberal studies and the arts. The first is rather general and has to do with the analysis of instruction. The second is more specific and involves a set of rules for writing behavioral objectives which are useful in guiding instruction without becoming trivial.

There is certainly nothing original in the observation that there is little correlation between the goals educators profess and the daily goings-on in their classrooms. We talk and write incessantly about aesthetic sensibility, culture, creativity, appreciation, empathy, imagination, and so on. But the evidence continues to pile up that teachers and administrators are concerned almost exclusively with can-do behaviors of the narrowest sort. The most popular in-

structional method is still the rote recitation over the textbook.[8] The cognitive activities most often demanded of students are memorization, recall, recognition, and reproduction. The ambience of the typical classroom swings between tense boredom and dull depression. Curiosity, self-assertiveness, independence, individuality, and overt expressions of self-respect are punished or more cleverly discouraged. The situation is, in short, that many behaviors elicited and reinforced in school situations are logically and emotionally incompatible with the liberal objectives schools profess.

One can admit the impracticality of specifying in behavioral terms the ends of liberal education, while still insisting that there has to be some relationship between what we do every day and what we finally achieve. At the very least, we cannot shape one sort of behavior day after day, year after year, and expect that at the end of their educations students will manifest precisely the opposite behavior. We cannot teach critical independence by insisting on the mechanical application of memorized critical formulas. We cannot teach respect for thought by attending only to mechanics and forms of expression. We cannot teach honest self-expression by punishing disagreements with established opinions. We cannot teach students to be free citizens by treating them as witless ninnies. And, above all, we cannot teach students to honor the common humanity of all men by expressing contempt for the student's own humanity in our every word and gesture.

As a start then, let humane educators begin to think in terms of behaviors at this level. What are the things a liberally educated man does that are not done by the uneducated? What are the preferences, responses, pastimes, expenditures, companionships, activities that distinguish him from those who have not had his advantages? And then: which of the behaviors of the liberally educated man do we actively discourage our students from exhibiting? Which of the behaviors of the uneducated man do we reward our students for exhibiting?

From the commonsensical analysis of what is actually done in classrooms, we can infer what are the real objectives of teachers and we can infer what behaviors students are really learning. Where such an analysis reveals that the can-do and may-do behaviors that are actually being practiced and learned are self-evidently incompatible with the long-term, will-do objectives of the discipline, then we have advanced in our knowledge; then it becomes logically

[8] See James Hoetker and William Ahlbrand, "The Persistence of the Recitation," *American Educational Research Journal*, 6 (March 1969), 145-168.

inescapable that we must either change our practices or bring our objectives in line with reality.[9]

But the habit of thinking about educational objectives in behavioral terms can also make the more positive contribution of improving our instructional practices. I want to suggest a very tentative set of rules for humanists attracted by the idea of behavioral objectives. Following these rules—or rules like them—one can avoid the obvious impracticalities of doctrinaire specificationism, while still taking advantage of the basic soundness of the behavioralist's hard-headed insistence upon public evidence.

RULE ONE: Never write behavioral specifications having to do with can-do behaviors. There is already far too much concern with such things in conventional classrooms. Everyone says that such learnings are not ends in themselves but groundwork for the development of higher level may-do and will-do behaviors. Let us concern ourselves, then, only with finding ways to operationalize the higher level behaviors. Simply by refusing to concern ourselves with operationalizing lower level can-do behaviors we accomplish several things. We avoid the reduction to absurdity, inherent in specificationism, which can lead to lists of 1,581 social objectives for English. We avoid the charge of triviality so often thrown at attempts to behavioralize objectives

[9] Or at least that should be the case. Actually, things are more complicated. For instance, fifty years of research studies have concurred in finding that there is no connection between the can-do behaviors shaped in the study of language and linguistics and the may-do and will-do behaviors which English teachers have identified as their objectives. It is instructive that the response of some English educators to their long-delayed acceptance of this evidence has not been to abandon compulsory language study but to try to dispense with objectives altogether so that they can continue to concentrate on teaching can-do behaviors. The study of language is interesting for its own sake, the argument goes, and that is justification enough.

I bring this up in the present context only because it seems likely that this particular ploy is going to prove increasingly attractive as a way to avoid the challenge presented by the specificationists. But the "I teach it because it is interesting" dodge does not solve the problem, it simply redefines it. I certainly think that "interest" and its stronger relatives, joy and ecstasy, are commendable objectives and have been too long ignored by our educational systems. And I also think it is completely reasonable to demand that the educator who is working toward these objectives be able to specify in behavioral terms what a student does when he is feeling interested or joyful. Pleasure is a desirable condition in itself, and it motivates and accompanies and follows successful learning. But if one says pleasure is the terminal objective of an instructional sequence he has undertaken, then he must consider that he opens himself to the objection that his students might be given more pleasure by other means. He must be ready to explain how the particular kinds of pleasure behaviors he wishes to elicit are different from and preferable to those elicited by drama, rock music, dance, movies, sex, pot, or simple freedom from any imposed tasks at all.

in the humanities and arts. And we free teachers from a lot of poor and unprofitable labor. Let us write behavioral objectives, then, only for higher level behaviors. If they are displayed, then we may assume that the requisite lower level tasks have been mastered. If the higher level behaviors are not displayed, empirical evidence that students have nevertheless mastered the so-called foundation tasks is actually an indictment of our incompetence. If we really do not value quiz-show knowledge for its own sake, let us stop dignifying it; and let us certainly not waste our time writing behavioral specifications for every little gobbet of fact in our discipline.

RULE TWO: State all behavioral objectives in binary terms: pass or fail, happen or not happen; present or absent. This enables us at a stroke to avoid the problems of criteria, baseline data, and levels of student achievement. The statement of the objective should be a description of the behavior to be performed or the product to be produced or the activity to be engaged in. The only question involved in evaluation is whether a particular student or a particular class did or did not do or produce what the objective describes. Teacher concern for finer measures of gradations of performance can be justified only on the basis of wanting to rank order students rather than teach them.[10] Note that with a dichotomous objective it is not the student who is being evaluated as having achieved this or that percentage of mastery. Rather, it is the teacher who is evaluated as having succeeded or failed with this or that percentage of his students or his classes. This gives the teacher the inestimable benefit of a public and objective criterion by which his work may be judged, the same criterion that is used to judge coaches, who win or lose so many games, and generals, who win or lose so many battles.

Within the constraints of the first two rules, may-do behaviors are the ones to be specified in behavioral terms. May-do behaviors are produced in response to novel stimuli and can be thought of as fractional components of will-do behaviors. They resemble can-do behaviors in that they are elicited by the teacher and can be observed at a particular time; but they resemble will-do behaviors in that the details of the performance are, within limits, chosen by the student and are indicators of his cognitive organization and his per-

[10] To the researcher, evidence of change without measures of the magnitude of the change would seem trivial. But the teacher's needs are different from the researcher's. Besides, the expression of objectives as binary choices does not rule out the obtaining of as much other data (test scores, grades, etc.) as one might desire. It simply means that objectives will not be expressed in terms of such criteria (unless in pass-fail terms) and that the primacy of the binary objectives may at times dictate that certain conventional measures are pedagogically undesirable.

sonal value system. The may-do behaviors that can be specified in behavioral terms need not be scholastic behaviors in any usual sense; they may be behaviors which are signs that the student is newly open to or is seeking certain competencies or understandings; or they may be behaviors which will expose the student to the possibility of further learnings.

RULE THREE: Do not define behavior too narrowly. All the following might, in certain circumstances, be the behavioral objectives of an instructional sequence: the students will cut class less often; the students will express enjoyment, laugh, and touch one another; the students will take a walk in the woods; the students will begin to speak out in defense of positions they feel strongly about; the students will question or criticize authority; the students will try to help or protect younger or weaker students; the students will play the roles of persons very unlike themselves; the students will ask to do additional work of a certain kind. And so on.

Let me give you just two examples of what may come of the application of these rules. The first example is from some of Alan Engelsman's and my own work in developing drama curricula for English classes. The main thing we were concerned about was teaching students how to "visualize" as they read a play. We concerned ourselves only with the may-do behaviors involving visualization, not with whether students could verbally define the term or remember the many ideas and examples presented in the lessons. We defined "visualization" behaviorally, in terms of student performance on tasks of increasing complexity. Each task was a problem which the student solved or did not solve. Some of them involved role-playing situations: the student who was not imagining the script in terms of movements and bodies might find himself standing as he said, "I'm on my knees like a fool." Others involved written responses. For instance, students were given an excerpt from Antony's funeral oration and asked one simple question: What would you *see* happening during this scene if you were on a high building overlooking the Forum? If the student mentioned Antony's stripping the cloak from Caesar's body, he had behaved in such a way as to demonstrate he was visualizing the scene; if he did not mention this essential action, he was not visualizing, no matter what else he may have written. Other behavioral indicators of progress, built into the lessons, included such questions as whether or not, by particular stages in the lesson, students have voluntarily brought in props, voluntarily memorized their parts, read unassigned parts of the play being studied, and so on.

A succession of such explicit behavioral signs of progress is, obviously, use-

ful to the teacher as a source of feedback to help him decide what tack to pursue in the next class and as a source of information about the progress of particular students.

But other sorts of behavioral specifications can give guidance of a more general sort. In one case I know of, for example, a committee of high school English teachers were asked to produce a set of behavioral objectives for the low track or basic English classes in the school. Their feeling was that there were certain observable physical states in which achievement was more likely to take place than in others. They felt further that positive changes in these states were self-evidently related to positive changes in affect toward the subject matter and the tasks involved in mastering it. From these assumptions, they drew up a list of unorthodox behavioral objectives which included items like the following.

> Absences from Basic English classes will be lower than they were last year.
>
> Fewer 11th and 12th grade Basic English students will drop out of school than dropped out last year.
>
> A smaller proportion of students in basic classes will receive semester grades of D and F than in the preceding year.
>
> An examination of each teacher's grade book at the end of the year will show a decline in the number of late or missing assignments.
>
> The number of students participating in class activities and the length and frequency of their contributions will increase during the year.

Such objectives have several important characteristics. First of all, although they are stated in terms of class behaviors rather than individual student behaviors, they meet the specificationist criteria for the writing of educational objectives, or they can easily be rephrased to do so. Second, they have face validity as indicators of changes in student behavior in a direction essential to the attainment of desirable will-do behaviors. Third, though they do not specify anything about the content or organization of the course, they imply a great deal about how the teacher wishing to attain these objectives will interact with his students and how he will arrange his priorities. Fourth, the same objectives may be—and were—stated at all grade levels, thereby putting upon each teacher the clear responsibility for moving his students further ahead and providing a sort of articulation that is organic rather than artificial or arbitrary. Fifth, the objectives are so stated that the teacher's class attains a particular objective or it does not. Once a teacher has accepted such goals

as the definition of his job, there is no room for self-deception and no point in blaming the students for not achieving.

Within such broad guidelines as are provided by these sorts of objectives, the more limited objectives, such as teaching students to visualize, have their place. Still, the process of writing sound and useful objectives for particular lessons is not something to be done in the abstract or before the fact. The broad behavioral goals for a year's work should come first, and the sensitivity to behavioral signs and processes that will develop when one is working in full consciousness of such objectives will lead to the emergence or the discovery of the more specific objectives.

Much of today's curriculum is obsolete, and, though functional replacements are now only dimly to be seen, the author says trends clearly indicate that in the schools of this new decade the student will be given responsibility in formulating his goals, plus considerable latitude in the management of his own learning program. Objectives that now emphasize specific content will give way to those stressing concepts and principles. However, these objectives will be explicit and evaluation of instruction direct. Emphasis will be on the functional. This paper particularly complements those in this part by Sue M. Brett, J. N. Hook, and Isabel Beck.

Visions of the Future Schoolroom

JOHN C. FLANAGAN

The vision of the future schoolroom to be described here will be based on clearly defined trends. The projections will not go to the twenty-first century or even to 1984, but only to the seventies. It is hoped that this estimate of what the immediate future will be like will emphasize the urgency of the need for changes in the English curriculum to meet the requirements of the schools in the next few years.

The most obvious trend in American education is the change from a system for educating the elite to a system for *educating all the children.* The change is dramatically illustrated by the change over the last sixty years in the proportion of those entering the first grade who go on to complete high school. The figure has increased from 10 percent to 70 percent over this period. In the last several years, the number completing high school has been increasing about 1 percent per year. It seems likely that the goal of elementary and secondary education for all will be achieved in the not-far-distant future.

Because of this anticipated infusion of students who in the past dropped out, the students of future years generally will be less academically inclined and somewhat more limited in their ability to use language as a tool of com-

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munication. The 1960 Project TALENT survey indicated that about four students per thousand at the ninth-grade level were unable to read even simple sentences. More importantly, the Project TALENT study indicated that the typical high school twelfth grader had serious difficulties comprehending paragraphs from the *Reader's Digest*, failed to understand even a larger portion of the ideas in paragraphs from *Time* magazine, and missed more than seven of ten questions based on the typical paragraphs selected from *Saturday Review*. It should be emphasized that not only are there large individual differences in the ability of students to read and comprehend materials, there are also increasingly large differences in their interests and their ability patterns.

The second major trend is the *rapid increase in technology* in our era. These technological changes are having a major impact on career patterns, leisure-time activities, and the responsibilities of the citizen for both civic and international relations. The technological revolution has not yet occurred in education, but there are numerous indications that this will not be delayed for long. There is little doubt that the future schoolroom will benefit greatly from technological advances which will provide both audio and visual performances of plays and poems by the best available talent. Instant replays can assist the student to appreciate the methods of both the author and the actor in expressing an idea. Similarly, the electronic computer is becoming a valuable resource to the student and teacher.

Another trend, which is at least in part dependent on the two trends noted above, is the enormous *expansion in available knowledge*. The number of books in print is increasing exponentially, and the concepts, principles, and theories in many fields are growing so rapidly that procedures for selecting the most appropriate materials and for improving the efficiency of learning are absolutely essential for future schoolrooms.

A fourth trend is the *broadening of the focus of the educational program*. Other changes make it necessary for the school to accept increased responsibility for (a) preparing the student for an appropriate occupational role, (b) preparing the student for citizenship responsibilities, and (c) assisting the student to find and explore satisfying activities for the increased leisure and recreational time anticipated. This broadening of focus would apply not only to the changing functions of education but also to the increased emphasis on developing *abilities* rather than memorizing content. Students must learn how to learn, how to think, and how to make decisions and choices.

The fifth trend is toward *focusing on the individual's educational development* rather than on a course to be given to all of the thirty students in a

classroom. The increased variation in the patterns of ability of the students, the specific requirements for their anticipated roles and activities, together with the need for greater efficiency, tend to make it even more desirable to individualize most aspects of the educational program.

Another important trend is *the use of more systematic and sophisticated procedures for both determining and stating educational objectives.* Traditionally, in American schools, the textbooks and a narrowly prescribed course of study defined the main educational objectives in the various subjects. In isolated instances, experimental schools were established with unconventional objectives and teaching methods. Also, many teachers were allowed to formulate their own educational objectives for their students. In the past thirty years national commissions, state and local committees, and groups of teachers have developed sets of educational objectives. The usual procedure has been to pool the experiences and impressions of the group members and formulate a set of educational objectives. This has resulted in the proliferation of many sets of objectives. These sets have similarities, but each set has its own distinctive emphasis and flavor.

One of the first suggestions that there might be a better way than merely pooling personal experiences to develop objectives was the statement of Ralph W. Tyler in his chapter on improving instruction in *Educational Measurement:* "There are types of data that can be obtained by the school, college, or instructor that will provide bases for wiser decisions than when the choice of goals is made without such information. These include: (1) data regarding the students themselves, their present abilities, knowledge, skills, interests, attitudes, and needs; (2) data regarding the demands society is making upon the graduates, opportunities and defects of contemporary society that have significance for education, and the like; (3) suggestions of specialists in various subject fields regarding the contributions they think their subjects can make to the education of students. . . . Another consideration in choosing objectives is the findings of studies in the psychology of learning." [1]

More recently, Joseph J. Schwab of the University of Chicago, in an address delivered before the American Educational Research Association in February 1969, presented the following thesis: "There will be a renascence of the field of curriculum, a renewed capacity to contribute to the quality of American education, only if the bulk of curriculum energies are diverted from the theoretic to the practical, to the quasi-practical, and to the eclectic. . . . What is wanted is a totally new and extensive pattern of *empirical* study of

[1] (Washington, D.C.: American Council on Education, 1951).

classroom action and reaction; a study not as basis for theoretical concerns about the nature of the teaching or learning process, but as a basis for beginning to know what we are doing, what we are not doing, and to what effect; what changes are needed, which needed changes can be instituted with what costs or economies, and how they can be effected with minimum tearing of the remaining fabric of educational effort."

More recently Elliot W. Eisner, chairman of the Cubberley Curriculum Conference held at Stanford in May 1969, in his closing remarks emphasized the need to collect a wide range of valid data to evaluate the attainment during the school years of important real-life objectives. Perhaps the best example of this trend toward a systematic and sophisticated approach to the development of educational objectives is exemplified by the three-year study now in its second year in Bucks County, Pennsylvania, known as the Quality Education Program Study. In this study, extensive data are being collected in representative school districts based on classroom observations of behavior indicating both effective learning and learning deficiencies. These data are being supplemented with intensive longitudinal case studies of both students and graduates to provide empirical data to be used as one of the bases for developing educational objectives.

The major implications of these six trends for the schools of the seventies can be described under three main headings: first, a more functional curriculum; second, a truly individualized educational program for each child; and third, a new role for the teacher as an experienced guide, a continuous source of inspiration, and a valued companion in the child's search for self-realization.

The quality of education is very dependent on what the student is given an opportunity to learn. Much of what is in the curriculum today is obsolete. It is not so clear what the most functional replacements would be. It can be expected that objectives stated in terms of specific content will be replaced by generalizations such as concepts and principles. In all fields there is a strong tendency to replace simple facts with more functional skills and abilities. These include such tools as reasoning, communication, judgment, intuition, and creativity. Similarly, instead of exposing the learner in the schools of the seventies to music, paintings, poetry, and prose which the experts agree reveal beauty and truth to them, a genuine effort will be made to expose the child to examples which are functional for him in developing appreciation of effective or creative expression of an idea. It has been said that an important ingredient

of education is an exposure to greatness. However, if the student perceives greatness primarily as something unintelligible to him, the educational experience has more than failed—it has reduced his ability to appreciate this type of greatness.

The functional curriculum of the future schoolroom will not be focused on having the students learn who was the author of what novel or the name of the leading character in a particular book. Specialists in language arts are recommending that the basic functions of reading, writing, listening, and speaking provide the central core around which the curriculum in language, literature, and composition is to be constructed. Skills such as interpretation, critical reading, organization, and creative writing will be emphasized within these broad topics.

It can be argued that good teachers have been doing this for many years. Perhaps the major difference will be in the explicitness of the objectives and the direct way in which the effectiveness of the instruction will be evaluated.

The second change which will result from the trends listed above is the development of a *truly individualized educational program for each child.* This change will have a marked effect on the appearance, management, and equipment of the classroom and the functional roles of the teacher and students. Individualized *instruction* has been talked about in schools for more than fifty years, and numerous attempts have been made to ungrade the curriculum and allow each student to proceed at his own pace. A system of individualized *education* is only now beginning to be developed. The distinction being made between individualized education and individualized instruction is that in individualized education the *curriculum* is adapted to the individual student as well as the rate and method of learning.

This type of educational program gives the individual student the responsibility for formulating goals, making decisions and plans with respect to his educational development, and managing the learning program to carry out this program and achieve his goals. It is important to examine carefully the implications of this type of educational system, since there seems little doubt that students want, and will be given, increased responsibility. Ignorance of choices and consequences is the main cause of unwise decisions, and the individualized educational program must therefore assist the student to learn about the many roles, opportunities, and activities which life offers him. He must also learn how his present level of development, with respect to the abilities required by these possible choices, can be changed in order to qualify him for desired goals. This requires some knowledge of both individual differences and principles of learning.

Such an educational system requires that the student start learning about the world of work and the satisfactions to be gained in avocational pursuits, as well as the responsibilities of citizenship, during the first year in school. By some time in the intermediate grades, students begin to relate the abilities, interests, and values contained in descriptions of former students with the goals formulated by those students and their subsequent case histories. Gradually, by the time the student is required to make important choices in the eighth and ninth grades, it is hoped that he will have had practice in anticipating the consequences of various choices for persons with known characteristics and will be prepared to make tentative decisions for himself.

It should be emphasized that schools do not operate on this basis at the present time. If the student wants to know what to do he goes to an advisor or asks a teacher or his parents. Other "advisors" include his peers, the press, radio, and television. Unfortunately, it cannot be expected that all advisors will agree, and the student must take responsibility for the final choice. With the possibilities for educational development becoming increasingly numerous and complex and the potential losses from wrong decisions mounting, the importance of detailed knowledge of the available choices in relation to his abilities, interests, and values is abundantly clear.

To enable the student to acquire the detailed knowledge of contemporary life and its opportunities, it may be necessary for the curriculum makers in such subject areas as language arts, social studies, science, and mathematics to draw only sparingly from the great literature of the past. Contemporary models and problems may have to play a greater role in the novels, biographies, and other written materials used in achieving the primary objectives of the language arts curriculum. There is so much to learn about how to live in the twentieth century that we may not be able to afford the luxury of a detailed knowledge of life in the Roman Empire.

Some of the problems and procedures in the development of one new system of individualized education will be described briefly. First, a comprehensive set of educational objectives is being prepared. These include both the kinds of objectives that can be achieved in a two-week period and also intermediate and longer-range objectives. The longer-range objectives are items such as reading comprehension, interpretation, and effective expression which appear to be best measured along a developmental scale rather than in terms of mastery or unsatisfactory performance on a specific test. The short-term educational objectives are grouped in such a way as to require about ten to twenty hours of student time for mastery. These groups of objec-

tives are referred to as *modules*, and the guide suggesting the specific textual materials, films, tapes, or workbooks used to achieve these objectives is called a *teaching-learning unit*. The test given when the student feels he has mastered the objectives of the module is called the *module test*. The average student is expected to complete about 20 modules during the academic year in a given subject. A comprehensive educational program from grades 1 through 12 would contain at least 2,000 or 3,000 modules, of which the average student would take only about 1,000. Thus, it becomes very important to select those most appropriate for the educational development which will assist the student to achieve his life goals.

This introduces a new problem into curriculum making, the question of which set of approximately 200 modules from among those available in the language arts curriculum are most appropriate for a student's educational development. One approach to reducing this question to more nearly manageable proportions utilizes a classification system involving long-range goals. For example, using the test results and follow-up data from the 440,000 students included in the Project TALENT survey in 1960, a set of twelve groups of occupations has been developed. Briefly, these can be summarized in terms of the following group names:

1. Engineering, mathematics, physical science, architecture
2. Medical and biological professions
3. Business administration
4. General teaching and social service
5. Humanities, law, social and behavioral sciences
6. Fine arts, performing arts
7. Technical
8. Business, sales
9. Mechanical and industrial trades
10. Secretarial, clerical
11. Construction trades
12. General, community service, public service

Although the occupational group for which the student is preparing is certainly not a sole determiner of the language arts objectives most important for him, it can assist in the inevitable selection procedures which must be used. A program of study developed for a student using all available information about his goals, abilities, and interests must always be regarded as tentative and subject to continual review in the light of his recent perfor-

mance and other types of new information. In proceeding through his program of studies, the student takes the module test as he completes the module, and, if he passes all objectives, he moves on to the next module. If he does not show mastery of some of the objectives, he is directed back to the same or alternate learning units for additional study and review.

It is hoped that curriculum groups will give thoughtful consideration to assisting in the development of decision rules and procedures for generating the most appropriate program of studies in language arts and the other subjects for each student.

The final topic is the role of the teacher in the future schoolroom. Clearly, for an individualized program of the type described above, there will be only a minimum of teacher presentation to a class of thirty students. With the new technological equipment, such items as tapes, filmstrips, and even movies may be used by a single student or a small group of students. Even the six-year-olds have shown that they can manage the tape cassettes and the roller-type filmstrips without assistance from the teacher. The teacher's role is one of managing and administering the classroom in such a way that students can take full advantage of the opportunities for learning. The learning guides and instructional materials and equipment must be readily accessible to the students. The learning units assigned are judged in advance to be ones on which the student can succeed. However, in case there is an unexpected difficulty, the teacher or another student is expected to provide assistance.

Teachers who have participated in this system indicate that they are required to learn a great deal more about each individual student as a person in order to assist him with problems of distraction, availability of materials, planning and acquiring information about the most efficient learning methods for him. Students in the new system do not perceive the teacher as someone to be pleased by completing assignments given them but rather as an aide in the program of educational development that they have helped formulate. By assisting the student to formulate at least tentative goals and by seeing that he is given evidence of his progress toward attaining these goals in terms that have direct meaning and known implications for his future plans, the teacher can contribute to the student's motivation for learning and his acceptance of the responsibility for his own educational development.

The use of a computer terminal in the school, to score student tests and to store the results for future reference, relieves the teacher of much of the usual clerical load and makes available an invaluable resource for the student's use in formulating his program of studies and his long-range goals. The teachers

who have participated in the development and early use of this new educational program are enthusiastic about its potentialities for providing a much better education for our future students.

Take a shortcut in writing behavioral objectives, this state language arts consultant advises. First decide what are "desired adult competencies" in language arts, then determine if these are served by the curriculum at successive school levels. If lessons or units or courses do not contribute to the desired competencies, eliminate them. Behavioral objectives, then, are really behavioral competencies.

Behavioral Objectives: English-Style

LOIS CAFFYN

Those teachers of English language arts who have become involved in curriculum study—either singly or in committee—in an effort to do some local problem solving often feel themselves miring down at the beginning of the process in an attempt to formulate acceptable philosophy and objectives. They reach in every direction for a ready-made answer, assuming that someone else has already said it better than they could say it; but sometimes they discover that they are clutching only collected driftwood. The logs may be warped from having grown in a prevailing wind or on the half-darkened side of a hill, or they may be smooth and gray with no place to take a hold. At this point some teachers give up the will to go on with the struggle.

One basic difficulty in either accepting or formulating philosophy and objectives is that they are traditionally stated in terms of learnings that are almost impossible to detect, let alone to measure. They are usually dependent on forms of such verbs as *know, understand, appreciate, develop,* and *enjoy.* They are worded in much the same way for all levels from the second through the twelfth grades. With goals stated thus, teachers find little or no relationship between the aims and an actual lesson in a room full of students. Even learners cannot be certain of their own accomplishments.

What, then, should the curriculum committee members do to cross the quagmire and get on with constructive curriculum study and planning? They

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might well by-pass the entire slough and come to firmer ground by another way. They could lay aside both philosophy and objectives and formulate desired adult competencies in the four language arts areas—listening, speaking, reading, writing—in terms of what people do. The following examples, obviously not a complete listing, are accompanied by suggestions for directions in thinking. People with adult competencies in English

listen (eagerly, courteously)
attend (community meetings, clubs, concerts, lectures)
participate (in discussion, conversation, government)
discuss (issues, beliefs, new knowledge)
converse (with poise, imagination)
explain (with clarity, patience)
seek (unassigned knowledge, interesting side issues)
choose (some challenging reading, stimulating dialog, some drama and poetry)
read (variety, for various satisfactions)
share (experiences, humor)
habitually use (preferred language forms, appropriate degrees of formality)
employ (colorful language, interesting vocal and bodily expression)
relate (new knowledge to old, different areas of learning)
show (language courtesy, curiosity, emotional control)
demonstrate (thought through considered language rather than through violence or profanity)
respond (to sensitivity, beauty, fine distinctions)

It has been said of reading that the important thing is not whether one can read but whether he does read. So is it with all the language arts.

When the desired long-range competencies can be identified for primary, upper grade, junior high, and senior high blocks of grade levels, within these blocks each unit of work and each individual lesson can be checked for validity as it contributes to one or more of the block and long-range desirable competencies. If it does not serve both, it should probably be eliminated. The relationship is usually clear.

Such desired competencies *are* the goals of language arts teaching—behavioral objectives, if one prefers current educational terminology. The understandings and appreciations of the traditional objectives are reflected in these behavioral competencies. They can be stated alongside as summaries of de-

sired behaviors if the teachers wish. A thoughtful consideration, however, of the stated desirable ends will show rather quickly the felt responsibilities and aims of the language arts teachers, the convictions that make them tick as teachers. These, stated briefly and directly, form the philosophy.

Is it possible, one may ask, for a learner to accomplish the behavioral competencies without the less tangible traditional objectives? It seems possible, but only if he is motivated in all his choices and habits by his image in the eyes of other people. It is not probable. Is it possible for one to attain the traditional goals without demonstration of at least some of these desired behaviors? It seems highly unlikely. Are there no silent, intangible learnings and developing sensitivities that cannot be stated in terms of behavior? There are many quiet understandings and pleasures, especially in acquaintance with literature, and there are taciturn and shy people, but some of their habits and choices will indicate their tastes. The behavioral competencies should be stated to include them.

These behavioral objectives and this philosophy are not driftwood. They are rooted in real evidence of language learning; their branches reach every teacher, every student, and every lesson; and they are especially reassuring to the curriculum committee.

In teaching literature the principal behavioral objective that teachers seek is a gleam in the student's eye. "But how can we measure a gleam?" Hook asks. We can't. He suggests that good behavioral objectives must incorporate the idea of this gleam. In this report he cautions, like James Hoetker, against defining "behavior" too narrowly.

The Tri-University BOE Project: A Progress Report

J. N. HOOK

With the support of funds from the U.S. Office of Education, representatives of three midwestern universities embarked in the summer of 1969 on a two-year study of behavioral objectives for English in grades 9-12.

The purpose of the study is to develop during the first year a preliminary catalog of behavioral objectives, to field test it during most of the second year, and then to bring out for the information and use of the profession *A Catalog of Behavioral Objectives for English in Grades 9 to 12.*

The codirectors are employing the assistance of a number of consultants. Senior consultants are Dean David Krathwohl of Syracuse University, coauthor of *Taxonomy of Educational Objectives, Handbook II: Affective Domain,* and Robert F. Mager, author of *Preparing Instructional Objectives* and *Developing Attitude toward Learning.* Other consultants represent various specialties and points of view within the profession; some are from secondary schools, others from colleges and universities. (Project personnel are listed at the end of this paper.)

Much of the writing of the objectives is being done by the consultants, although the directors will necessarily fill in gaps and do considerable editing. The precise form and extent of the catalog have not yet been determined, nor have the means of its dissemination to the profession.

The directors have from the beginning shared some of the reservations

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reflected in other statements in this publication. They do not regard behavioral objectives as a panacea, and they are aware of the potential abuse of behavioral objectives in the classroom, especially the danger of trivialization.

Why, then, did the directors undertake the project? There are several answers. One is that interest in behavioral objectives is sweeping the country, and many ill-conceived statements of such objectives (as well as some good ones) are already not only in existence but in use. The directors believe that a carefully prepared, well-reasoned statement, subscribed to by representative leaders in the profession, may guide developers of such objectives and prevent their misuse. If English experts do not do the work, it may be done less well by others.

Second, the objectives conventionally followed in English classrooms tend to be so vague as to be almost meaningless. What, for example, does "appreciates literature" mean? What does a student do when he appreciates? What are the evidences of appreciation? A clearer statement of objectives might make much class activity less rambling, better aimed, more valuable to students and teachers alike.

Third, the directors found the whole idea of behavioral objectives for English to be an intellectually challenging one. Such objectives are obviously easy to formulate in some fields. Students in a typing class, for instance, may have as an objective to learn to type fifty words a minute. That is easily measurable. In a science class, an objective may be to label correctly the parts of a frog—again easily measurable. But are the things done in an English class reducible to the kinds of statements that the behavioralists advocate, without doing damage to the genuine but not readily measurable values of our subject? Do some parts of the work in the English class lend themselves to behavioral statements, but not other parts? The directors found such questions real challenges to their minds, and to their emotions, too; and as the work progresses the amount of challenge is not diminishing. For a full hour at the 1969 annual business meeting of NCTE, a resolution on behavioral objectives was debated, and valid points were made both favoring and opposing such objectives for English. The directors and consultants must weigh those arguments and others as they proceed with their work.

Some things in English are relatively easy to describe in behavioral terms. For example, "Given a list of twenty spelling words and a half hour for study and discussion, a student writes the words as they are dictated and spells all of them correctly." Or, "Given five paragraphs of conversation, typed without

quotation marks, a student inserts quotation marks in conformity with present standard practice." Capitalization, matters of form in business letters, and the recognition of rhyme scheme or alliteration are other examples of the easily measurable.

But the mere fact that some parts of English are easily reducible to behavioral terms constitutes a danger. This danger is that in all parts of English, teachers may pick out as objectives only those things that are readily quantifiable. As a horrible example, they might reduce literary objectives to such things as identifying rhyme schemes and picking out similes.

There is a great deal in English that transcends mere counting, mere mechanical detail. The same thing is true of art, music, or any other of the humanities, and of the social sciences, too. In art, for example, it would be possible to limit objectives to recognition of specific paintings and description of their superficial characteristics. But certainly there is much more to art than that: the artist's use of his medium, the themes of his works, his relationship to his time, the philosophy of his paintings, what his paintings say to people today—especially what they say to the students in a class. In social studies, behavioral objectives may (undesirably) be reduced to listing the members of the president's cabinet, to naming the chief generals on both sides in the Civil War, or to memorizing causes of depressions. Such trivialization would not permit students to develop awareness of much more important matters, such as the light that history sheds on human beings as part god and part animal, part Ariel and part Caliban.

In English the danger of trivialization exists in all parts of our work but appears to be particularly grave in literature. It is fairly easy to list a number of observable behaviors like those I have mentioned regarding rhyme scheme, similes, etc. But are those really the learnings, the understandings that we want students to gain? What behaviors do we hope for? If you and I are good readers of literature, what behaviors do we show as we read and after we have read? We certainly do not read a novel by underlining all the similes, or read a poem with our chief focus on its rhyme scheme or its alliteration. Rather, we read it for the esthetic pleasure, the illumination, the knowledge, the understanding of human beings that we can get from it. If we like the novel, there's a gleam in our eyes as we read, and the gleam may return later when we think again of the novel. Really, the behavioral objective that we're mainly after in our teaching of literature is a gleam in students' eyes. But how can we measure a gleam? If we phrase an objective, "Having read 'The Rime

of the Ancient Mariner,' a student has a gleam in his eye," any outsider who reads that objective will think we're crazy. We need to find ways of stating the objective so that the idea of the gleam is there, but the word *gleam* isn't.

The directors decided early that, in order to keep from compiling a list of insignificant objectives, it would be necessary for each behavioral objective to grow naturally from a larger objective (non-behaviorally stated) that the profession generally accepts and that reflects current thinking about what we are or should be trying to accomplish. Basically there are four levels of objectives:

1. The large objectives of all education (a sound mind in a sound body, the ability to think clearly, good citizenship, etc.).
2. Major objectives in English itself (appreciation of literature, verbal interaction among students, ability to write coherently, knowledge of basic principles of the language, etc.).
3. Behaviorally phrased objectives growing out of the second level but expressed in somewhat general terms.
4. Behaviorally phrased objectives growing out of the third level but more specifically stated (for example, with reference to particular pieces of literature).

The goal of the Tri-University BOE Project is to produce definable objectives on the third level. A school, a school system, or an individual teacher could then rather easily translate these third-level objectives to the fourth level, by inserting the title of the specific author or piece of literature (or whatever). The behavioral objectives would thus be in effect fairly specific statements emanating from the second- and first-level objectives accepted by the profession. Thus the danger of trivialization, of selection of objectives just for measurement's sake, would be lessened.

On the matter of measurement, the directors and consultants were influenced not only by the writings and advice of Krathwohl and Mager but also by a talk presented by Alan Purves, who made the point that there are kinds of measurement besides the conventional ones. That is, measurement is not necessarily just in terms of countables—"linear" measurement, as Purves calls it—but also more sophisticated kinds of measurement such as those that he refers to as "topographic" and "trigonometric." The directors are not yet sure just how such measurement can be accomplished, but they will be trying. To the extent that they succeed, their catalog of objectives will be useful with

reference to those parts of English that are inadequately measured by chiefly subjective means.

The directors are not yet ready to submit actual examples of what the catalog will eventually contain. The consultants have produced several hundred level-3 objectives, usually related carefully to level 2, but these are currently undergoing revising and editing, and further refinements will unquestionably occur after the field-testing. Perhaps none of the examples that follow will actually appear in the catalog. They are presented here, however, in order to inform the profession about some of the directions in which the BOE Project is tending.

First, some examples with regard to language.

In the study of the English language, what is it that we really hope our students will learn to do? What is worth learning? What is worth doing? What is meaningful and useful to them now and also later, when they are no longer in school?

A level-2 objective that most teachers will accept is an understanding that the English sentence is systematically arranged. Regardless of the type of grammar taught, it shows in its own way the systematic arrangement of the sentence. Words can't just be put together in random order to build a sentence. Sentences are not random arrangements. *Random not are arrangements sentences* does not make sense, nor does *Not arrangements are sentences random*. It is very important to clarify the fact of system for students and to bolster their self-esteem and self-confidence by helping them to realize that they have already mastered most of the intricacies of the system. The human mind works at computer-like speed, and this speed is nowhere better illustrated than in the ways in which our minds almost instantaneously put several ideas together to form a compact sentence.

In translating this level-2 objective into level-3 terms, we necessarily break the large objective into a number of small ones. For example, "Given instruction in the basic sentence patterns, a student writes examples of each." Or, "Given a set of twenty kernel sentences in various patterns, a student matches those sentences that follow the same pattern."

For other examples under the same level-2 heading, consider transformations. "Given a set of sentences similar to *Tom hit Jerry*, a student rephrases each in a form similar to *Jerry was hit by Tom* and explains in nontechnical language the systematic way in which such passive sentences are formed from active voice kernels." Or, "Given a set of statements similar to *The king*

is in the counting-house, a student transforms each into a question that can be answered *yes* or *no*, such as *Is the king in the counting-house?* and draws a simple diagram to illustrate the systematic shift in word order involved in such a transformation."

Let's turn to a different facet of language. Most teachers now believe that it is worthwhile for students to realize that language changes, that it has a history, that Americans have contributed and are contributing to the development of the English language, that students themselves help to shape the language of the future. "Knowledge of the history of the English language," then, is a level-2 objective to which many teachers subscribe.

Among the many behavioral objectives into which this larger objective can be translated are these: "Given instruction in the chief ways by which places in the United States got their names, a student examines place-names in his own state and draws tentative conclusions concerning their origin. As far as possible each student checks his conclusions against reference books such as Mencken and Stewart." Given a list of words with interesting histories, such as *abundance*, *aftermath*, *assassin*, *ballot*, *curfew*, *inaugurate*, *tantalize*, and *taxicab*, each student uses a large dictionary or other reference book to discover some of these histories and presents his findings on one word to the class in a one-minute report." Or, for an advanced class, "Given an Elizabethan play, a student examines the ways in which questions are phrased and writes a brief essay comparing the Elizabethan and modern structure of questions." Other kinds of comparisons can also be developed. Even though the chief reason for reading Elizabethan dramas is literary rather than linguistic, students who have become interested in the study of language can find such comparisons enlightening.

Any objective, behaviorally stated or not, should be included only if teachers honestly believe that it represents something worthwhile and important for the student to be able to do. In our teaching of the English language we have seldom done enough to get most students excited about it. We have paid so much attention to grammar and usage that we have neglected the interest or even excitement that can be aroused by semantics, history of the language, dialectology, and even lexicography. Students can become tremendously interested in how places got their names, how people got their names, how words have changed their meanings, and how concepts of dictionaries have changed. In the study of semantics they can be almost awed by the ways in which choice of words can affect human lives. In writing objectives, one must keep such outcomes in mind and not concentrate chiefly on having students distinguish restrictive from nonrestrictive clauses.

If our instruction in language has been successful, it will produce almost as many gleams as literature does. The Tri-University Project is seeking, in part, to find ways of stimulating young people toward a love of language and to indicate ways in which that love can be revealed. It is worthwhile for students to seek the deeper meanings in words and sentences and to enjoy doing so. They should often talk about language when they are reading literature, and they should become sensitive to language in their speaking and writing—sensitive to the ways in which their use of language may affect others. They should enjoy language play, writing nonsense rhymes or poems in the style of Ogden Nash or E. E. Cummings, inventing word games, punning, and the like.

With regard to composition, teachers are becoming increasingly aware of the process of writing, though this process may vary from individual to individual. Much good writing, as British teachers are showing, results from good talk, from miming, improvisation, discussion. Behavioral objectives must take such modern developments into account.

The directors of our project are still not satisfied with what has been accomplished so far in the preparation of statements in composition, and therefore no examples will be included here. The consultants have provided a good basis for many such statements, but much reworking is needed.

A major worry about objectives in composition is that there is danger of stifling genius, of inhibiting the student who is highly inventive and very unconventional. Conventional objectives and conventional methods have often had such an inhibiting effect. As a profession we must seek ways to avoid smothering the potential Shakespeare. If Shakespeare had been taught composition by the essentially negative ways employed in many schools, his name might be entirely unknown to us.

In literature, too, there is danger of stifling—not just the genius, but all students. We turn students off with literature at least as often as we turn them on. Robert F. Mager, in *Developing Attitude toward Learning*, draws a useful distinction between "approach responses" and "avoidance responses."[1] In teaching literature (or anything else), we should aim in our objectives at those things that will help students to approach literature willingly and even eagerly, not cause them to avoid it.

The observation or measurement of such responses is often necessarily long-term, not immediate. One seldom becomes an avid reader of poetry after reading just a few poems. The approach is gradual and uneven; there may be

[1] (Palo Alto: Fearon Publishers, Inc., 1962).

regressions. Sometimes the outcome is not even observable during the school years. In the Tri-University proposal for this project, the directors said:

> It must be endlessly repeated . . . that because of the nature of English some aspects of it do not lend themselves to completely reliable non-subjective measurement, especially at the time when the in-school learning is occurring. We hear frequently, for instance, of stories like that of the boy who was apparently bored by Shakespeare but who as a soldier, a few years later, was heartened when he happened to recall the lines
>
> Cowards die many times before their deaths;
> The valiant never taste of death but once.
>
> Perhaps some faint clues may be suggested that can help to identify Shakespeare's effect even on boys like that, but it is clearly impossible to provide a definitive rating scale to take into account outcomes that may not be visible for years. Further, objectives must not concentrate on the superficial merely because superficialities are easily observable or measurable. It may be found that certain aspects of English instruction cannot be framed in behavioral terms.

Mager points out that in evaluation, particularly in the affective domain, we should be concerned especially with tendencies, with indirect indications. With regard to literature, we may ask whether at the end of a term a student tends more or tends less toward approach responses. Does he participate more eagerly or less eagerly in discussion of literature? Has the pattern of his responses changed at all? Does he more often relate what he is now reading to something he has read before? Does he check out more or fewer books from the library? On anonymous checklists concerning literature they have been reading—lists with words like *interesting, dull, fun, too hard, exciting, boring, useful, useless, too easy, very important*—what changes in a class's responses occur over a period of time?

These are signs of the gleam—outward manifestations. In teaching literature we have been enhancing the gleam in some students, diminishing it in others. Think of the dull-eyed boy who finally finds an adventure story that turns him on and makes him hungry for another one. In contrast, think of the first-grader who one day bounces home and shouts proudly, "Mom, I can read!" but whose enthusiasm is diminished year by year until as a high school senior, though he can read, he doesn't. We want to turn kids on with literature, not off.

So in choosing behavioral objectives in English (or any other subject) we need to try to find what will turn the students on or at least not off. As Mager

says, "If I do little else, I want to send my students away with at least as much interest in the subjects I teach as they had when I arrived."

This doesn't mean that literature instruction has to be all fun and games, or that there is no work involved. The University of Illinois professor of English to whom students usually give the highest rating as a teacher is also the one who works them harder than anyone else. But the work they do seems significant to the students, and the classroom atmosphere is a pleasant, exciting one. Work, according to Mager, should not be confused with unpleasantness.

Here are some examples of behavioral objectives in literature (taken from a much longer list), showing what the Tri-University Project is considering for inclusion:

> Given a play or short story, members of the class mime or improvise parts of the action or dialogue. Any student who participates, regardless of the degree of effectiveness, is considered to have succeeded.
>
> Given a poem suitable for choral reading, each student participates actively in the reading and occasionally contributes a suggestion concerning a way to improve the reading of a particular line or passage.
>
> After class discussion of basic causes of conflict among human beings, each student looks back at several short stories the class has read and writes down what he considers to be the basic cause or causes of conflict in each story. In class he presents and substantiates his ideas, and the class attempts to reach common agreement concerning the causes of conflict in these stories.
>
> Given a play, each student reads a role chosen by him or assigned to him in a particular scene. The student and the class comment on his reading of certain speeches, especially from the point of view of how well he brought out the meaning and the emotion. The scene is repeated and again critically analyzed.
>
> Given a piece of fiction or a play, the class discusses the basic motivations of each important character in an attempt to understand why the character behaves as he does. When disagreements arise, each student writes a paragraph or more to uphold his point of view. Students who have written about the same character read their papers to the class, and discussion follows, perhaps leading to a decision or a reconciliation of viewpoints.
>
> After exposure to several genres, the class discusses the variations in treatment that would have been necessary if the author had written in a different genre. For example, if the author of a short story had written a lyric poem on the same theme, what would he have done differently? Or if Shakespeare had decided to make *Midsummer Night's Dream* or *Twelfth Night* a tragedy instead of a comedy, what would he have done differently? Following the discussion,

each student writes a composition in which he answers such a question concerning a work of his own choice.

In reading a poem aloud, a student avoids a singsong reading, and avoids stopping at the end of a line except where punctuation signals a stop.

In the book *Selected Objectives for the Language Arts: Grades 7-12*, Arnold Lazarus and Rozanne Knudson state this objective non-behaviorally: "To understand that every poem has a logic of its own; that generalities and rules are likely to betray the explication; that many a poem is in part like a unique puzzle to be solved on its own terms."[2] The writer of a behavioral objective must ask himself what outward manifestation of this internal behavior may be revealed. Here is one not completely satisfactory statement: "Given a poem that is difficult for him, a student treats it as a kind of puzzle. He carefully examines each sentence, each word, each image, etc. to discover what clue it may provide for the solution. He reveals this attitude through his contributions to class discussion of the poem."

The Tri-University Project is still young. The directors believe that behavioral objectives have a place in English instruction, though they have reservations, too. They do not believe that the mere creation of a set of such objectives will miraculously transform an English class, causing every student to become an excited and fully involved member. And the danger of trivialization, it must be constantly reiterated, is a real one that must be avoided.

But on the positive side, work on behavioral objectives forces teachers to rethink why they are doing what they are doing. If the reasons are inadequate, if something is being taught only because it usually is taught, some deadwood may be removed from a curriculum and replaced with something alive and relevant. Second, well-conceived behavioral objectives may in some instances replace the vague statements now so frequently employed. Third, behavioral objectives require emphasis not on the subject alone nor on the student alone but upon the interaction of subject and student. By placing a premium on doing and not on "understanding" or "appreciating," behavioral objectives recall to our minds the hope that students will make use of what we are teaching, not just absorb it. Fourth, in so far as evaluation can be built into objectives (and the directors are not yet convinced that immediate, completely nonsubjective evaluation is possible in all parts of English), the teacher's task of evaluation is somewhat eased and the results may be more fair to all students.

[2] (Boston: Houghton Mifflin Company, 1967).

The young project faces other problems not yet mentioned. How, for instance, is it possible to avoid the teacher-dominated classroom if the teacher phrases the objectives and then expects the students to attain those objectives rather than others perhaps equally valid? Can students themselves help to frame behavioral objectives? Is it possible to correlate, within a behavioral objective framework, the study of observing, reading, listening, writing, speaking, and language, rather than presenting them as seperate strands?

With the help of an extremely able group of consultants, the directors hope to find at least partial answers to those and other questions.

The Tri-University BOE Project

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The voice of the "anti-intellectual cost accountant" is strong in the land. In response, some measurement people have rushed in to use old and inadequate yardsticks in the futile attempt to assess student behaviors masked by so many variables that valid measures are impossible. This specialist in evaluation in English says that one result is the destruction of the creative mind. He calls for new modes of measuring and suggests directions in which this effort must move.

'Measure what men are doing. Plan for what man might become.'

ALAN C. PURVES

I wrote this brief on behavioral objectives and measurement in the mountains of New Hampshire, a place where one often sees the slogan, "Guns don't kill, people do." One might well translate that slogan to the topic at hand and say, "Behavioral objectives aren't evil, curriculum builders who use them are." In saying this, I should like to note certain trends of thinking about measurement and evaluation in education and their relationship to curriculum building.

The idea of thinking about education in terms of behavior is not a new one; people have long been judged by what they did or what they knew. Sophisticated thinking about the different mental operations involved in "knowing" and "doing" is relatively recent, however, and became increasingly sophisticated under the influence of analytical philosophy. In the field of English, I. A. Richards's *Practical Criticism* may be thought of as a pioneering analysis of precisely what people do when they write about literature.[1] Richards's book, of course, examines these actions in the light of certain ideas he had about what they should be doing; nonetheless, he sought to describe their various relatings of themselves to the work.

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[1] (New York: Harcourt, Brace & World, Inc., 1929).

A more general pioneering work is that of the group led by Benjamin Bloom, David Krathwohl, and, later, Bertram Masia that sought to taxonomize the various behaviors (both cognitive and affective) that education sought to enhance.[2] The main purpose of such a taxonomy was not to write curricular goals but to examine those that had been written and then to classify test items in a way that depicted cross-disciplinary similarities. The taxonomies assume, for instance, that analysis in chemistry, language, literature, and music is a single activity of the mind operating on disparate entities, or at least that the different kinds of analyses have certain common elements. As we know, the taxonomy also arbitrarily separates the cognitive and affective behaviors for its classificatory purpose. As long as this classification was to be used descriptively, either to characterize existing curricula or existing tests, it remained a useful tool.

It was six years after the publication of the first of the taxonomies that Robert Mager's *Preparing Instructional Objectives* was published.[3] This volume was developed not for the scholar but for the average teacher of vocational education so that he or she could determine precisely what it was that was desired of the students. To a lesser extent than Bloom, Mager was concerned with being descriptive. He aimed to help people clarify their objectives so that the achievement of these objectives could be evaluated objectively.

For the most part, objective evaluation means linear measurement with its standard scores, means, standard deviations, norms, and, most particularly for our purposes, criteria. For every addition problem, there is a criterion of rightness or wrongness, for every loaf of bread a criterion of whether it rises or not. When we hear of behavioral objectives, therefore, we tend to think of objectives that can be measured linearly. With addition and baking, this connection makes some sense, although not absolute sense. But when it comes to the humanities, one runs into a great number of snags that had been hidden when one was thinking of mathematics and domestic science.

Let me take literature as my prime example, although what I have to say may equally well be applied to the other parts of the English curriculum, even that "hard" science, language study. I have elsewhere attempted a behavioral description of the activities involved in the study of literature.[4] I

[2] *Taxonomy of Educational Objectives: The Classification of Educational Goals;* Benjamin S. Bloom, *Handbook I: Cognitive Domain* (New York: David McKay Company, Inc., 1956); David R. Krathwohl, Benjamin S. Bloom, Bertram B. Masia, *Handbook II: Affective Domain* (1964).

[3] (Palo Alto: Fearon Publishers, Inc., 1962).

[4] Alan C. Purves and Nancy L. Dill, "The Teaching of Literature: Report of the U.S.

undertook this as part of an international study so that I could reconcile the various statements about the teaching of literature.

We found that, in relation to content, the prime behaviors listed by the curriculum writers included those marked A through J in Figure 1.

Figure 1

Content and Behavioral Objectives in Literature

Behavior

Content	A. Recognize and recall	B. Apply knowledge of specific literary texts to	C. Apply contextual information to	D. Apply literary terminology and theory to	E. Apply mythologic information to	F. Respond to	G. Express a pattern of preference for	H. Express a response to	I. Express a pattern of response to	J. Have positive attitudes and interests in literature
1. Specific literary texts										
2. Contextual information										
3. Literary terminology and theory										
4. Mythologic information										

Now the problems of establishing criteria for each of these behaviors emerge as soon as one examines them. Even that simple behavior, *to know,* poses problems, for no two people can agree as to what the salient parts of a literary work are that should be known; we might agree that every student should memorize everything, but I think that is a bit unrealistic, and besides, most of us would temporize by saying that knowledge of that sort is less important than certain of the other (although not higher) behaviors. Taking the second series of behaviors, these too seem on the surface capable of linear

National Committee, I.E.A. Literature Project," mimeographed (New York, 1967). Available on application to the author.

measurement with a fairly self-evident criterion; it is easy to tell whether someone can spot the metaphors in a poem by Keats or note the similarities and differences between *Silas Marner* and *Macbeth,* or the relationship between "A Rose for Emily" and Faulkner's life. Yet even this area has its problems. What is the correct application of knowledge of Faulkner's background to the story? Is it related to an incident in the writer's life, or does it exist as a symbolic instance of the decadence of the South that Faulkner saw and described elsewhere? Who is to say? We know we couldn't trust Faulkner even if he were alive. How sure are we then of the relationship of a work like *The Scarlet Letter* to Puritanism, to Hawthorne's life, to the transcendentalist's ideas of nature, to Hawthorne's satiric works, to the pastoral tradition, to an Aristotelian or Hegelian idea of tragedy? We may well have asked examination questions about any of these relationships without any real surety, I would argue, that such a relationship is valid. These relationships, these applications of the knowledge of one set of data to another set of data are the basis of a great deal of the intellectual stature of man. "Classification is all of learning," says I. A. Richards, echoing Aristotle. Each of these is a way of structuring the world that we see; that is, we look at a work of literature and classify it as a novel, a romance, a tale of greed, a warning about pride, a symbolic recreation of the Fall, and so on, and so on. Each of these is accurate to a point; none of them captures the full work, and none fully captures even part of the work. The criterion for judging the adequacy of a student's relating *The Scarlet Letter* to Puritanism is not simply that it is or is not related, but whether it is a depiction of that relationship in a way that seems to the observer to account for every stray word and thought in the work, and for every facet of American Puritanism—a job beyond the massive capability of the late Perry Miller.

As with the application of knowledge, so with the various modes of expressing response. Response itself, the most vaunted goal of literary education, is unmeasurable, and so we must be content to deal with its various manifestations: the recitation or enactment of the work; the various statements that may be made about it in writing or speech; and the other activities that may result from it, as well as the simple act of choosing that work over some "subliterary" work. Each of these manifestations is a structuring of a part of the relationship between the reader and the work. His recitation or mime represents how *he* would recite it; there is no criterion that says that Burton's Hamlet is better than Olivier's, or which of the words in "That's my last duchess, hanging on the wall . . ." should be stressed. Nor in the expression

of one's engagement can there be a criterion that places engagement over aesthetic distance; nor in analysis of language patterns of a sonnet, which of the patterns is of prime importance; nor of interpretation, whether a psychological interpretation is better than an archetypal one; nor of an evaluation, whether praising "Trees" for its eloquent statement of an important thought is better than damning it for being an illogical verbal structure. Morris Weitz, in *Hamlet and the Philosophy of Literary Criticism*, shows that each of these deals with a different order of question, and each is equally unsuitable to "objective" validation.[5] Michael Polanyi in *Personal Knowledge* goes further than Weitz by showing that objectivity is an illusion, that even the most scientific of statements betokens an assumption or set of assumptions about the nature of the universe or a part of it.[6]

But, one might argue, there are better or worse statements about the language patterns in a sonnet; of that I am not so sure. The criterion of betterness escapes me. Is it better to say that it is an *ababcdcdefefgg* rhyme scheme, that it is iambic pentameter with inversion in the first foot of lines 1, 3, and 7, or that there is alliteration in lines 2, 4, 6, 8, and consonance in lines 3, 11, and 12? Each speaks of different things. Granted there can be inaccurate statements, such as calling the meter anapestic trimeter, but this level of accuracy is also one approaching triviality.

Perhaps we can find a criterion when we deal with attitudes about literature. Certainly it would seem better to be a reader than a nonreader, to go to libraries rather than to climb mountains, and to deplore censorship rather than to burn books. I would say yes, and so would you; yet I recognize that many intelligent and good people are not readers, that climbing is important for one's health, and that some kinds of censorship seem at times socially desirable; witness those kinds that the NCTE is fostering with such an innocent volume as *Reading Ladders for Human Relations*—why that instead of *Reading Axes for Human Hatreds*, save that we want to suppress the latter kind of literature?

We can, then, delineate the overt behaviors with which literary education deals, but we have a hard time being very sure about the direction in which many of these behaviors should move. In language study, too, we have a hard time establishing a criterion of good writing or good grammar or even of which grammar, since each is a different and complimentary and viable structuring of the flux of language. I would suggest that the fault lies not in

[5] (New York: The World Publishing Company, 1966).
[6] (New York: Harper & Row, Publishers, 1958).

the behaviors themselves, whether we spell out objectives or not (those are the behaviors with which we shall be dealing), but with the very notions of criteria and direction. Instead of linear measurement, we need to employ topological or topographic and trigonometric measurement, measurement such as that performed by James Squire, Kellogg Hunt, Francis Christensen, Louise Rosenblatt and others.[7] We need not ask whether a student has a good mind for literary study but rather, What kinds of literary study does he do? Not, Does he have the right response? but, What kind of response does he make?

As a means of pointing some alternative directions in evaluation of student achievement, let me seek to define those three different kinds of measurement —the linear, the topographic, and the trigonometric. The best way I can do so is by analogy to the measurement of a flagpole. Most of what educational planners are interested in is covert behavior, what happens inside a person that may determine some subsequent actions. Teachers are interested in whether people like literature, what people think about the world, what sense of grammaticality resides in people's minds, what attitudes towards God, home, country, and art people might have. This covert behavior may be likened to the flagpole. It exists, and we are pretty sure it is there, but we don't know how tall it is, nor exactly what is at the top—a ball maybe, with an eagle, or is it some leaves? When the sun is shining, we do have the shadow of that flagpole available to us. The shadow may be thought of as overt behavior, the statements about reading interests that people make, the essays and sentences they write, the actions they perform.

In treating that shadow, there are three possible operations. The first is to take a ruler or a yardstick and see how long and how wide it is. This might be called linear measurement. In this case the measurer has a standard or a criterion of how long a foot should be, and he sets that ruler against the shadow. In English, we have a great many rulers or yardsticks: our sense of a proper critical response, our sense of what proper taste should be, our sense of grammaticality. If a student's utterance does not measure up to that criterion, the student is deficient. The shadow is not what we want the shadow to be. This kind of measurement, the most prevalent form of measurement

[7] James R. Squire, *The Response of Adolescents While Reading Four Short Stories*, (Champaign, Ill.: National Council of Teachers of English, 1964); Kellogg Hunt, *Grammatical Structures Written at Three Grade Levels*. (Champaign, Ill.: National Council of Teachers of English, 1965); Francis Christensen, "A Generative Rhetoric of the Sentence," in *Toward a New Rhetoric*, Papers from the 1963 Conference on College Composition and Communication (Champaign, Ill.: National Council of Teachers of English, 1963); Louise M. Rosenblatt, "Towards a Transactional Theory of Reading," *Journal of Reading Behavior*, I (Winter 1969), 31-49.

in education (even though the ruler is disguised as a normal curve and a standard score), suffers from a false notion of the surety of the yardstick, as I have pointed out in the first part of this brief.

But there is a second way of treating that shadow. The shadow falls on a part of the field or asphalt. We can measure what part of the field it covers. This might be called topographic or topological measurement. To take an example from English, the essay might be described to see what logical path it does follow (comparison, division, and definition) or whether the path is a nonlogical one, what critical response it pursues—interpretation, description, evaluation, or an impressionistic reconstruction—or which of Martin Joos's five clocks it might fall under. To use this kind of measurement is to treat the student's utterance as a document as worthy of critical attention as a poem by Donne. Curiously, most measurement of student writing is not critical in this sense but a repudiation of all the critical standards that we profess: most measurement treats a student's writing the way a dyspeptic copy editor or an opprobrious censor treats a novel. No wonder students reject our values. We might urge ourselves as measurers to be topographical as well as linear. This measurement too, of course, is necessarily limited as to its validity.

But topographical and linear measurement are simply dealing with shadows: neither of them relates the shadow to the flagpole. There is a kind of measurement, what might be termed the trigonometric, that seeks to infer from the length and shape of the shadow what the height of the flagpole is and whether it has an eagle. It does not assume that the inference is absolutely accurate, however, but seeks continually to validate its measures. This trigonometric measurement has its counterparts in the measurement of overt behavior in English. When a student writes an essay, as readers of that essay we may seek to relate the expressed utterance to what we presume went on in the student's mind. We may say of it, "that's honest," or "that's not what you really meant," or "that's an expression of real interest." If the student talks about the author's life, we may, if we are Freudians, say that he is repressing the phallic wounding in the poem. When we hear a child of five speak a number of sentences, we may say that the child has mastered the grammar and morphology of a certain dialect. In each of these cases, we are not exactly sure that our depiction of the flagstaff is an accurate depiction, but we are willing to make a fairly large wager. This kind of measurement is what psychometricians are performing when they say that scores on a certain test are indices of something they call intelligence. Unfortunately, too many

people assume that the inference is absolutely valid; or, worse, they assume that the shadow and the flagpole are the same thing. It is this assumption that leads too many people to write behavioral objectives with the assumption that the measurable behavior that they are setting as an objective is the behavior they desire.

To be a bit more specific about the differences between the three kinds of measurement, I shall work through the process of measuring an educational objective. One of the common general goals of literature instruction might be said to be that the students should develop an informed and varied taste in literature. For a specific grade, that goal might be rewritten to say that the students should demonstrate an acceptance of a variety of literary materials both through their talk and writing about literature and through their active selection of materials in a free situation.

Linear measurement of that goal would be of several sorts. The most obvious one might be the collecting of data on the book and magazine buying and borrowing habits of the students (either through indirect observation or a questionnaire). After collecting this data, one might analyze it according to content type (animal stories, sports stories, and the like), genre, and level (children–adult or pop-cult–high-cult). The reporting of this data would then be to say that the children who are reading more and more varied material are doing "better" than those who are not. To measure linearly whether the children's taste is informed, one would have to ask them why they chose the selections they chose and determine whether the justification was subjective or objective, whether blurted or reasoned, whether based on no criterion or some criterion. In any case, the better justification might be determined to be objective, reasoned, and based upon a criterion. The students could therefore be measured as to their degree of fulfilling some agreed-upon criterion of taste and rationality.

Topographic measurement would take the same shadow, the data on habits and preferences, and would possibly take the same first steps in analysis; but the similarity would cease there. To take the buying habits, the topographic measurer would seek to define an exhaustive classification of the possible kinds of selections (with a taxonomy of adventure stories or animal stories drawn along some Frycan or Jungean lines perhaps) and say of a child, "Why, this student prefers stories of types *x*, *m*, and *p*. She also dislikes intensely stories of types *b* and *h*. She therefore fits into a pattern similar to the pattern of 60 percent of the students. She differs from the majority of that group by being a more active reader in that she reads over seven books a week." There is, therefore, a placing of the student. A topographic measure

of justification would also stop at description but would seek to analyze that description more fully, determining whether the criterion is one of form or content, whether the criterion is consistently supported, or whether the criterion is dependent on the work judged.

Neither of these types of measurement, however, go from shadow to substance. Trigonometric measurement might very well take the same data and ask another type of question about the student's taste. If the student preferred horse stories the measurer might ask, if the student were a girl, about the student's relationship with her father. If the student showed a preference for both popular action stories and adult contemplative fiction, the measurer might hazard that this indicated a tension between what the student preferred and what he thought others would want him to prefer. If the student gave involved formal justifications of his taste, the observer might infer that the student had a highly developed esthetic sense which had supplanted an emotional response, or that the student had developed a series of defenses for preferring works that in other respects were suspect (cf. Norman Holland, *The Dynamics of Literary Response* [New York: Oxford University Press, Inc., 1968], especially pp. 193-224). Needless to say, this kind of measurement is anecdotal and tentative and based on the vantage point of the observer. Linear and topographic measurement suffer from similar limitations, but, because they can often be reported in numerical fashion, they have the veneer of objectivity, and the measurer too frequently hypostasizes his numbers and pretends that his vantage point is the only one there is.

Too often the objective sought in the statistically reliable test is not the behavior that the curriculum builder wants. To give an example, many of the curricula of the sixties sought to bring students to a point of mastery of certain cognitive processes with respect to literary texts. They prepared students for high scores on the Advanced Placement test or some other measure of critical acumen as determined by the yardstick of new criticism. That is the shadow they sought to pursue. If one looks at the students taught through this curriculum, however, one might surmise that the sun has shifted or that the flagpole has changed, for the behavior that seems produced is a repudiation of all the values established in those measures, a repudiation in favor of doing one's own thing. One can, then, fault the curriculum builders for assuming that the shadow of intellectualization about a literary work was directly related to a flagpole of the rational man. Something went wrong, and we do not know the extent to which an intellectualized curriculum produced an anti-intellectual generation: too many variables intervene, but it is this very fact of intervening variables that establishes the main danger of behavioral objectives.

But having said this, I realize that the proponents of behavioral objectives can counter and say that it is all very well to be idealistic, but that topographic and trigonometric measurement do not face up to the problems of determining which students should be promoted and which held back, which should be admitted to college and which not when one throws away the measuring stick. This came home to me recently when one of the guiding forces of the National Assessment said, "All I want to know is whether we're putting enough money into literature, and your kind of measurement won't tell me." He represents, I think, a strong influence in this country, the influence of the anti-intellectual cost accountant. Now the payoff of literature is not always manifest. We cannot prove that it does any good. Oh, it helps the literacy rate somewhat, but we don't think it affects our attitudes much. We can say the same thing about teaching composition. It doesn't help people much either. Each of them, however, gives the student a chance to try different ways of structuring and controlling the flux of experience around him. As Jerome Bruner wrote, "Emphasis on discovery in learning has precisely the effect on the learner of leading him to be a constructionist, to organize what he is encountering in a manner not only designed to discover regularity and relatedness, but also to avoid the kind of information drift that fails to keep account of the uses to which information might have been put." [8] This being so, it seems to me that education in the mother tongue should have as its objectives and modes of instruction open and tentative systems. Evaluators can seek to describe and measure people's behavior, but they must realize that they are dealing with only a small part of what is going on when people read and respond to literature, when they generate utterances, and when they compose their conceptualizations. They are dealing with the overt response, the utterance, the composition. Even with those evaluative means that seek to deal with process, means that need further development, we can only guess at the validity and accuracy of their descriptions.

But describe they will, for we are measuring and systematizing animals, and we want to know how we are doing. We need not forego our natural curiosity about ourselves and our fellow men. But the describer should not become the prescriber; that trend, it least, should halt. Education, particularly education in English, should not be limited to the measurable but should seek to do what educators deem for the human weal. Let the measurement people seek new ways of measuring and discard their self-imposed limitations which are coming to destroy the creative mind.

[8] *On Knowing: Essays for the Left Hand* (Cambridge, Mass.: Harvard University Press, 1962), p. 87.

Meld humanistic goals and behavioral objectives, this writer urges. She suggests that to accomplish this, behavioral objectives should be viewed simply as technique, and emphasis should be placed on individualized learning, on analysis of each student's entering competencies, on process rather than product, and on defining the learning process as successive approximations. This will insure the emergence of the educated man with humanistic orientations, now too often formed "by chance or because of favored circumstances unrelated to the educational system."

Towards Humanistic Goals through Behavioral Objectives

ISABEL BECK

The title of this session, "Humanistic Goals versus Behavioral Objectives," evokes the image of a Skinner box (experimental space) enveloping the soul of a student. The clever and preferably fiendish operator of the experimental space is succeeding in having the student do and say what he does not want to do and say.

One can also easily conjure up another image—that of a steam engine labeled technology roaring down upon a female tied to the rails. She, preferably, is posed as Wisdom. The imagery suggested by the title is not helpful to education. The title should be "Humanistic Goals *and* Behavioral Objectives." Rather than seeking confrontation between humanistic or educational goals and behavioral objectives or behaviorally oriented instructional practices, we should be seeking ways to bring them together. Humanistic goals set the ends of education and behavioral objectives the specific sub-goals or means to goal attainment.

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A behavioral objective is defined as a specific instructional statement that tells as precisely as possible what a student should be able to *do* after he has had a given learning experience.[1] I have seen behavioral objectives for various levels of mathematics and reading, for a college-level course called Introduction to Structural Linguistics, for elementary science, for a college rhetoric course, and one for the driver who, given a car with a manual choke, must start the engine on a cold day when it does not turn over on the first try. While I have never seen any, I'm sure an experienced con man or someone with the opportunity to observe and analyze a successful con man could write an excellent set of behavioral objectives on how to be a con man.

There is nothing in the definition of a behavioral objective that tells any teacher what to teach or tells any student what to learn. Viewed from that perspective, behavioral objectives are neutral. But once a teacher has decided to teach something, a commitment to organize the instructional process around behavioral objectives is not neutral. When a teacher develops and uses an instructional procedure that is based on behaviorally defined goals, he finds that he must specify the outcomes in terms of the performance expected of the learner at the conclusion of his teaching efforts. What is taught, therefore, must be based on clear specifications of what the student is expected to do. The student's final performance, as well as steps involved in acquiring the final ability, must be observable and assessable. When appropriately structured, behavioral objectives can become tools through which educational goals are achieved. They are not an end in themselves.

It seems neither very revolutionary nor very threatening to require that we identify systematically what kinds of student performances are associated with various stages in learning, nor to assert that learning is more effective when these stages are sequenced in such a way that later, more complex learning is built upon earlier learned competencies. A structured learning system based on behavioral objectives has a special potency. It is potent because, in requiring careful specification of the expected outcomes for any given unit or course, it forces us to reassess both what we are teaching and the premises that underlie teaching the way we do. We must be concerned with specifying the goals of instruction, with sequencing the steps in learning, with planning instructional activities which will enable students to attain the goals, and with evaluating the effectiveness of our instruction in achieving them. There has to be systematic and analytic concern not only with the subject one teaches

[1] C. M. Lindvall, Introduction, in *Defining Educational Objectives*, edited by Lindvall (Pittsburgh: University of Pittsburgh Press, 1964), p. 2.

—whether freshman English, algebra, or early reading—but with the observable behaviors which will demonstrate competence in the skills and understandings associated with that subject matter.

Behavioral objectives are, then, a technique. Yet they are suspect. Behavioral objectives may appear suspect to the humanist because of the distinct model of man and scientific methodology often associated with behaviorism. When behaviorists and those with other frames of reference debate this model of man and this methodology, discussions are often aggressive, hostile, and emotional.[2] Such debates suggest that there is little possibility for reconciliation between behaviorism and other methodologies.

Educators and psychologists may also view differently the meaning of behavioral objectives. Charles Jones points this out when he states:

> The educators and the psychologists have different orientations in regard to learning. Educators, for example, are inclined to specify their objectives in such terms as "acquiring values," "developing understanding," "thinking clearly and effectively," or more specifically "learning to read," or "learning mathematics." The psychologist, however, prefers to view all these objectives as statements about desired changes in behavior. For him, education is a process of changing behavior.[3]

It is probably the concept of "changing behavior" which is most appalling to the humanist and which perpetuates the chasm between humanism and behaviorism. When a child who does not know how to read is taught to read, the teacher has indeed changed his behavior. Learning to add two-digit numbers is a change in behavior; learning to search for imagery in a particular piece of writing is a change in behavior. Teachers do indeed change student behavior. However, many teachers of English would, I think, prefer not to think of this as a scientific or behavioral event.

It is the gist of my argument that ignoring what the behaviorists *or* the humanists teach perpetuates the "pedagogy of myths" which has been legitimated by tradition rather than in terms of humanistic values. I am arguing that we cannot afford to ignore what the behaviorists have learned if we are to teach effectively the goals which humanists hold. We have a twofold responsibility: utilizing what we know about how people learn, and contributing to that knowledge.[4]

[2] William D. Hitt, "Two Models of Man," *American Psychologist*, 24 (July 1969), 651-657.

[3] "Learning and Television," unpublished paper (Lewisburg, Pa.: National Project for Improvement of Televised Instruction, Bucknell University 1966), p. 4.

[4] Robert Glaser, "The Design and Programming of Instruction," Supplementary Paper No. 28 (New York: Committee for Economic Development, 1968), p. 156.

Present in the rationale for public education are two values upon which I think we would agree. They are that each individual should be provided opportunity to develop his personal potential, and that individual differences —physical, mental, behavioral—should be appreciated and provided for within educational programs. The achievement of these goals, among others of course, should be the basis upon which the educational system is predicated. These goals cannot be achieved, however, without transforming our views of the instructional process. The utilization of behavioral objectives can be a linchpin in this transformation.

Behavioral objectives are vital because the requirement that one state the outcomes of instruction in observable pupil behavior allows the teacher and the student to assess whether he has or has not met the mark—whether he has achieved. When the proposed objectives of a unit of instruction have been stated in terms of pupil performance, there is then a basis for making decisions about what experiences may bring about the desired outcomes, and there is a basis for determining how well the instruction is proceeding and whether it has been successful.

Let's look at a rather specific example. Most English teachers would agree that an important outcome of instruction is for a student to be able to express himself, in writing, in a form that can contribute to meaningful communication. Or, simply stated, to write clearly. Richard Ohmann states some of the problems in present English composition courses when he writes:

> Apparently we have no wide agreement on the nature and purpose of English 101. . . . How we judge our success depends in part on whether we think of English 101 as teaching students to write fluently, teaching them to think well, preparing them for liberal education, "exposing" them to the best that has been thought and known, helping them to become intelligent citizens, qualifying them for specific careers, or serving one or more of many other announced and covert aims. But even if we agree for a moment on one aim, such as the first, our success in achieving it can be, has been, seriously questioned.[5]

Let's narrow the problem by just looking at one expected outcome of English composition—to write clearly. This particular goal is the aim of not only college English 101, but many preceding and succeeding courses. When we ask the question, What does it mean to write clearly? we frequently come up with answers such as to communicate the writer's ideas to the reader, to write precisely, to write cogently, to put one's thoughts on paper clearly.

[5] Editor's note for "Talk-Write: A Behavioral Pedagogy for Composition," by Robert Zoellner, *College English*, 30 (January 1969), 267.

These kinds of broad reasons give English teachers little help in choosing the appropriate methods and experiences to achieve the outcome. Now, let's ask the question another way: How do we recognize a clear writer when we read his work? I would propose that many of us *do recognize* a clear writer. I further propose that, if we started there and tried to analyze what the clear writer *does* when he writes, we might begin to determine some of the many components involved in the very complex behavior—to write clearly. Bandura states very well the relationships between simpler components and complex behaviors:

> Complex behavior is an aggregate of simpler components which must be individually learned and appropriately integrated. After complex performances have been adequately analyzed, conditions that will permit learning of the component behaviors can be designated. Without this type of behavioral analysis, change agents remain at a loss how to proceed and simply fall back on favorite routines.[6]

Back to the components involved in the complex behavior—to write clearly. I propose that there is some kind of logical hierarchical organization of these components and that through searching analysis of what a clear writer does when he writes clearly, an orderly learning sequence of these components can be established. Not only for college English 101, but for first grade through at least college English 101. I am not suggesting that the terminal behavior—to write clearly—cannot be achieved until English 101 and that for twelve years children will only be involved in learning component behaviors, but rather that to write clearly is an ultimate goal and that learning to write clearly is a series of successive approximations.

Robert Glaser speaks to the concern of teachers that exact specification of objectives leads to concentration on only mechanical kinds of skills:

> The fear of many educators that detailed specification of objectives limits them to simple behaviors only—those which can be forced into measurable and observable terms—is an incorrect notion if one thinks of them as amendable approximations to our ideas. If complex reasoning and open-endedness are desirable aspects of human behavior, then they need to be recognized and assessable goals. Overly general objectives may force us to settle for what can be easily expressed and measured.[7]

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[6] Albert Bandura, *Principles of Behavior Modification* (New York: Holt, Rinehart and Winston, Inc., 1969), p. 74.

[7] "Evaluation of Instruction and Changing Educational Models," *Evaluation of Instruction*, edited by M. C. Wittrock and D. Riley (New York: Holt, Rinehart and Winston, Inc., in press).

Zoellner succinctly states the problem and the needs of composition instruction:

> The central failure of current compositional pedagogy . . . is its apparent inability to furnish the student-writer with anything but the most generalized specifications for getting from one side of the writing situation [poor writing] to the other [good writing]. What is urgently needed is a pedagogical technique which will supply the student-writer with a set of compositional specifications which are (a) successively intermediate rather than ultimate, (b) visible rather than invisible, (c) uniquely adapted to the student's unique writing problem, and (d) behavioral rather than historical, addressed to writing rather than the written word.[8]

All too frequently, we focus on *terminal* achievement and ignore both the *entering competencies* of the student and the *processes* by which entering competencies are transformed into terminal achievements. As a result we are not in a position to detect and reinforce improvement. Because we do not often see as a major part of our task the development of hierarchical structures of learning skills and the behaviors associated with those skills, we often subject the student to learning experiences which can never result in his achieving desired goals but evoke instead frustration and a sense of failure.

A specific humanistic value cited at the beginning of this discussion is to create an environment in which one can achieve his potential—or, to translate into the language of today, to do one's own thing. Many persons who choose to classify themselves as humanists believe that a behavioral analysis procedure is directed only to getting the student to do what the teacher or the system wants him to do. This is a false impression. The essential purpose of a behavioral orientation toward learning is to *assist* the student in learning. If we ask the question, How do students typically achieve the power to do their own thing? I would have to agree with James Evans, who has argued that random variables too often determine what thing they do. These include social class, location of the school, family reinforcement, physical and psychological attributes, and color.[9]

Although no humanist would argue against the worth and regard for the individual, many of our educational institutions in practice deemphasize the individual. We use instruments in our predictions which are sometimes culturally biased, and we assess performance using instruments of doubtful validity. We base evaluation on the "acceptable" paper, or score. As was stated

[8] Zoellner, "Talk-Write," p. 284.

[9] "The Technology of Doing Your Own Thing," paper presented at the Seventh Annual Convention of the National Society for Programmed Instruction, 1969.

before, we do not systematically explore the entering competencies of the student, nor do we ask what is needed to improve these entering competencies so that the student could show important growth on his class papers, or in his test scores, or so that the student could indeed do that which intrigues him. All in all we are inordinately concerned with the product rather than the process of creating that product.

We further tend to deemphasize the individual by emphasizing the performance of a group. We plan our school structure—scheduling, subjects, length of time devoted to a subject, prerequisites, and experiences—in terms of aggregate achievement rather than in terms of individual learning increments. In this structure we continually fall back on what other generations have done for structure, for evaluation, and for legitimization.

If we take humanistic values seriously, we would have to argue that the individual should be taught and his progress evaluated as an individual. To teach the individual we will have to stop evaluating education in terms of semester hours or class hours and in terms of aggregates.[10] We need to assess, in participation with the student, where he is, where he needs to go, where he wishes to go, and, given his characteristics, how he might get there. An individualized educational system seems to be a form of educational system that is compatible with humanistic goals. It seems particularly so as it may equalize access to humanistic goals.

Individualized instruction, I have suggested, is the proper mode for creating an educational system in which achievement of personal potential and respect for individual differences can best be promoted.

The definition of individualized instruction that is most relevant to my argument is that of Heathers: "Individualized instruction consists of planning and conducting with each student a program of studies that is specifically tailored to his learning needs and his characteristics as a learner." [11]

Random individualized instruction is of doubtful effect. Individualization requires a schematic of the learning process. Robert Glaser suggests such a schematic in his behaviorally based operational model for individualization. This model provides for (1) specifying learning outcomes in behavioral terms, (2) diagnosing the initial state of a student entering a particular instructional situation, (3) a variety of paths for attaining a particular learning outcome, (4) teacher and/or student prescription of the learning tasks, (5) monitoring

[10] Robert Glaser, *Science Education News*, June 1967, p. 1.

[11] Glen Heathers, "Teacher Education for Individualized Instruction," paper as part of a teacher training institution conference conducted by Research for Better Schools, Philadelphia, 1967.

student performance at appropriate intervals, (6) self-improvement of the system through continuous feedback of information and evaluation.[12]

For the past five years the Learning Research and Development Center at the University of Pittsburgh in cooperation with the Baldwin-Whitehall School District has used the model just outlined to develop and implement a program of individualized instruction in reading, mathematics, and science at the Oakleaf Elementary School. Approximately 250 children, kindergarten through sixth grade, are involved in the program called Individually Prescribed Instruction.

The fundamental requirement in the schema of the learning process suggested above is that behavioral objectives be developed for each step of what is to be learned. This is an enormous task, requiring continuous intensive formulation, testing, and revision.

Once again we come back to the importance of continuous analysis of the learning process. In advocating the analysis of learning behavior, we run headlong into two prejudices against the behaviorists' methodology: the observation of animal behavior to provide information and data, and the use of machine analogues. As Zoellner points out, it is not a humanistic trait to ignore what systematic studies of animal behavior suggest, nor is it humanistic to ignore the schematics that come from machine analogues.[13] In using analogues one need not adopt the posture that man is exactly the same as all other animals, or that man is a machine similar to a computer. Such analogues can be helpful in developing an exploratory structure for studying the learning process. They need not be regarded as true pictures of the human mind.

It is sometimes argued that the behaviorists' emphasis upon operational specifications and upon data brings a mechanistic view to learning which ignores the creative processes. The development of mechanisms as well as the development of data is not mechanic. Quite the contrary. Jeanne Chall, for example, points out that there is plenty of room for confrontation within available data about how children should be taught to read.[14]

Humanistic goals and procedures for defining behavioral objectives can both contribute to an educational system in which the achievement of personal potential and respect for individual differences are given salient value. Individualizing instruction is one means for such achievement. To operate an

[12] Wittrock and Riley, *Evaluation of Instruction.*

[13] Zoellner, "Talk-Write," p. 285.

[14] Jeanne Chall, *Learning to Read: The Great Debate* (New York: McGraw-Hill Book Company, 1967).

individualized educational system the following are necessary: specification, in behavioral terms, of the learning goals associated with different levels of the educational process; analysis of the entering competencies of every student; reinforcement of those behaviors which lead progressively toward the achievement of the terminal characteristics; definition of the educational process as successive approximations; creation of an operating information and diagnostic system; creation of an operating condition for self-management. In such an environment we may achieve humanistic goals. Without conditions such as these the educated man with humanistic orientations emerges too often by chance or because of favored circumstances unrelated to the educational system.

I think it is important to state again that an educational technology using behavioral objectives imposes no restrictions on the kinds of ultimate goals that may be achieved by any course of instruction. Such a technology may be used to narrow and to restrict goals. But it may also be used to develop more powerful curricula which result in pupils achieving highly desirable humanistic goals and values.

If in an educational system, the structure of learning rests upon behavioral objectives, the style of teaching rests upon a strategy of successive approximations and selective and immediate reinforcement, and the environment emphasizes self-management and an adequate information system for both the teacher and the student, then that educational system may become a reliable implementor of humanistic goals.

True to the intent he expresses in his introductory remarks, the author poses some provocative questions about the language used to formulate behavioral objectives. "Can we really achieve an integrity somewhere between the unsystematized insights of Lawrence's Fantasia of the Unconscious *and the systematized observations of the quantifying behaviorists?" Can we?*

Behavioral Objectives: Some Inquiries

GEOFFREY SUMMERFIELD

Your chairman's helpful draft program had as its subheading "Clarification and Inquiry." My contribution will be more Inquiry than Clarification, directed specifically at the translation of Dartmouth into behavioral-objectives terms.

John Dixon's title, *Growth through English,*[1] is for me significant in two main respects. First, it puts the emphasis where it properly belongs, on Growth, a large abstraction which can only assume adequate meaning when seen in terms of individual, localized, social, and personal particularities, but which also begs some complicated questions. Which brings me to my second point: that the significance of "growth" is a problematical matter. Philosophically, subjectively, in terms of value judgments, it brings into question, and forces one to make explicitly articulate, one's own operative beliefs and convictions about what characterizes "growth"; and in this matter one is both supported by one's culture—sustained, that is, by a sense of one's antecedents, by the minds, the deeply sustaining minds of such people as Coleridge, William James, John Stuart Mill, and Matthew Arnold, to name but four—but one is also *limited* and even trapped by one's culture, insofar as one is an agent, and instrument, willy-nilly, of that culture, of its broader, unwritten socioeconomic and political assumptions. In this sense, it may well be that the children of revolution will, when they come to effective maturity, have very different answers from those that we cling to. But the concept of "growth" is

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[1] (Reading, England: National Association for the Teaching of English, 1967).

also keenly problematical in that it must also submit itself to empirical analysis and be modified by the techniques and the findings of those who operate empirically. In the crudest sense, growth is quantitative as well as organic; and whenever we invoke any of the long-cherished values of the humanist educational tradition—the notion of a fully developed personality, for example—we have to recognize the distinct possibility that we are merely trading in cliché, in the vacuously formulaic, muttering self-reassuring incantations. Approaching the matter, then, in crudely quantitative terms, let us consider as an example the question of lexis. The intelligent discussion of any of the major social issues of our time—political dissent, sexual permissiveness, the generation gap, and so on—is clearly dependent on the availability and effective, actual usefulness of a generously full and responsively subtle lexis. When comparing a useless account with a useful account, the stultifying with the illuminating, one of the first features to compel attention is the discrepancy between a limited and limiting lexis, on the one hand, and a subtly responsive, precisely modulating and modifying, specifically particularizing lexis, on the other.

Assume, then, for the sake of argument, that an educated effective polity, a genuinely participatory democracy, has access to and command of an adequate lexis: and one is then faced with some nice, delicate, practical choices. One is the question of how an open, extensive, increasingly resourceful lexis is to be made available to our students, how *they* are to be brought to *avail* themselves of such a repertoire. And, embedded within this strategy, is the question of tensions, of the tensions between the student's subculture, with its own distinctive nonstandard lexis, its slang, and the "standard" culture of the teacher, of the school, of the establishment.

I'd like to push this matter just a bit further, asking you to make allowances for the fact that social class differences in the United Kingdom are rather more rigid, rather less fluid, than they are in the States. Generally speaking, the student, as he moves into and through adolescence, does one of three things. The minority experience no conflict between home and school: both parents and teachers "speak the same language," and the lexis of the classroom is not significantly different from or more extensive than that of the living room. The majority, however, live in two camps, and, to some marked degree, they are brought to make a series of choices between them. Scott Fitzgerald remarked once that the test of a first-rate intelligence is the ability to hold two opposing ideas in the mind at the same time, and go on operating. The opposing ideas, in this case, consist of (a) a more versatile lexical repertoire, capable of sustaining such activities as conceptual thinking

and analysis, a kind of urbane play with abstractions; and (b) the "dialect of the tribe," the language of home, of parents and of grandparents, supplemented by the accessible, acceptable, and socially useful language of "pop" culture, of the mass media.

The options tend to be taken by the student in the form of either (a) or (b), rather than both (a) and (b). Our failures are those who stay with (b) exclusively because they find (a) opaque, unattractive, inaccessible, trivial, and unnecessary: our failures opt out of some possibility, some potential extension, because it proves unattractive and alien to them.

But, you will cry, it is absurd to consider lexis in isolation. In order, then, to attend to the contexts of lexis, let me give you an exemplary case, a fable, which happens to be true. One of my students from the graduate department of education at York was recently teaching a class of twelve-year-olds. Part of her objective was to demonstrate the disparities between actualities and reports: with her students, she examined reports of football matches, and they came to see that the newspaper reports were extremely selective and generalizing, made certain assumptions about their readers, and often failed to convey the distinctive tensions and excitements that one experiences in watching a game. The students went on to write ostensibly verbatim accounts of how spectators behave and talk. In one boy's account, Spectator A says to Spectator B: "We ought to throw something at the referee." B replies: "Right! I'll go down to the bog and get some bog-paper."

The whole thing was lively, authentic, and immediate. The teacher approved of it, she enjoyed it, and she pinned it up on her classroom wall for students to read. The school principal removed it. She, the teacher, asked why he had done so. His explanation was that by displaying such work, she was implicitly endorsing, nay, encouraging, vulgarity.

Her answer, in effect, was that one can only grow in one's own soil. That by accepting and enjoying the language of her students—unredeemed, unwashed behind the ears—she was working to provide a universe of discourse within which both she and her students could *share* a language: the principal's hang-up was that he was threatened by the dialect of the tribe, because the school "stood for" the obliteration or prohibition or suppression of the dialect of the tribe.

Hitherto, we have played an odd one-way game based on the premise that we have possession of that which our students need: lexis, register, cultural heritage, deportment, and so on. What we need to promote is a delicate kind of awareness that will allow our students to explore with all due intelli-

gence and sensitivity the place of the word "bog" in the complex transaction of contexts that takes place when they enter our classrooms. If we are, however, to describe such objectives in *general* terms, we stand in danger of simplistic formulaic bland generalities: the life of the flesh may have been scraped from the skeleton.

One supplementary question: when we come to write "objectives for English" into our curricula, brochures, syllabuses, or whatever, is there not a tendency for us to perpetuate the high-sounding cant of educational officialese, instead of speaking from *within* the actual person-to-person relationship as it exists between ourselves and our students?

And if the framing of objectives is to be genuinely existential—the articulation of what we actually do rather than the windy formulation of pious aspirations—what kind of language can we most usefully use? *Can* we really achieve an integrity somewhere between the unsystematized insights of Lawrence's *Fantasia of the Unconscious* and the systematized observations of the quantifying behaviorists?

Another supplementary question: much of *our* lexical repertoire derives from an engagement with and pleasurable involvement in literature: but we didn't read Faulkner or Thurber or Mark Twain *in order* to improve our vocabularies! When therefore we attempt to formulate objectives explicitly, what do we say about our aims in our literature program? Do we actually claim that it is to be taught, in part, in order to improve (i.e., extend and sensitize) our students' word-hoards?

The author contends that the behavioral approach is neither scientific nor honest, offering "a one-sided approach to human affairs." The Curriculum Commission feels that this paper states well some of the fundamental difficulties underlying the writing of behavioral objectives, especially in light of the recommendations of the Dartmouth Seminar.

Misbehaviorist English: A Position Paper

JAMES MOFFETT

As an exercise in clear thinking, it might be a helpful thing for English teachers to write behavioral objectives—and then throw them away. We probably tend to be more fuzzy-headed about what we are doing than math or science teachers. At any rate, we often operate intuitively. As a result, a lot of research in English education has probably wasted government money. To concede all of this, however, is not to yield penitentially to cost accountants' preference of evaluation models. English is difficult and different, because a native language is enmeshed in the vast and intricate fabric of interpersonal and intrapersonal life. For this reason, to waste money on research in English may be necessary for a while before results are satisfactory. (More money is being wasted on more dubious enterprises.)

What I see as negative in the formulation of behavioral objectives for English concerns three areas: the inadequacy of such formulation to do justice to the goals of English, the unintended mischief that will almost surely result from publishing behavioral goals, and the bad precedent set for future relations between government and education.

Some goals in English imply overt behaviors and some do not. In insisting that desirable behaviors be *observable*, the behavioral approach rules out a great deal of learning—too much to merely mention in a cautionary note

James Moffett is with the University of California, Berkeley. He prepared this position paper in October 1969 as one of the consultants meeting in Indianapolis with the co-directors of the Tri-University Project: Behavioral Objectives in English, Grades 9-12. See the paper by J. N. Hook in this section.

prefacing the goals. Consider, for example, what may be happening in a more taciturn member of a discussion group. The effects of certain reading, acting, and writing on a student's social, emotional, and cognitive growth tend of course to be long-range and inextricable. Although it helps to acknowledge that many of these effects will either occur years later and often out of school, in practice these effects will either not be observed by evaluators or be falsely attributed to more recent school treatment—or, most likely, be ignored because they cannot be causally traced. The greater the time-space span, the less likely it is that effects can be ascribed to their proper causes. A behavioral approach will tend to favor short-span, well-segmented teaching fragments, because observed "responses" can then be more easily related to the applied "stimuli."

Even at short range, observed behavior can be badly misinterpreted by a psychology that in the name of objectivity refuses to infer what is going on in the black box of our head but does not refuse to infer the meaning of observed behaviors because the latter are supposedly self-evident and entail no inferences. But any observation entails inference. The claim to be an objective observer is really unscientific. The mere fact of being overt does not make a behavior objective. Einstein said that the observer is the essence of the situation. (In this regard, incidentally, the claim that the behavioral approach is centered on the learner is not very honest. A premium is placed on the favored viewpoint of the observer.)

In order to reduce the observer's inference to an "objective" level, it is necessary to control the stimulus-response situation to an extreme degree. In education this means to simulate laboratory conditions within a classroom—to systematically vary one factor at a time. For this reason, the protest that trivia need not result rings hollow; it is built into the "objective-observer" emphasis, which requires over-systematized fragmenting of learning. Without a respect for inner processes, such as genetic development, an observer can misinterpret certain confusions in the thought and speech of students as task failures when actually these confusions indicate arrival at a more complex stage of growth where more errors *can* be made. A student who describes dialectical differences very well after a session of hearing recordings of different dialects may be drawing on previous personal experience unknown to the observer.

So mainly, what is unscientific is limiting observation to the external view and repudiating all introspective statements. Since truth surely cannot inhere in one point of view alone, it must follow that an inside-outside view is more

truthful. Overreacting to the mystical elements in earlier vitalist and mentalist psychologies, S-R psychology adopted another extreme in denying truth to the individual's own description of his inner life and consequently in denying his self-assessment of his learning. The only hope for truth through observation is to synthesize the totality of observations—from different times and vantage points—into a full picture. This certainly must include the student's statements about what he has or has not learned, how and when. The interior and external views correct and corroborate each other. Discrepancies stimulate new insights.

Also, because objectives determine evaluation, it is absolutely essential that the learner have a hand in formulating objectives. Otherwise, some kinds of learning behavior of value to him will never be written into the curriculum because they are not destined to be assessed. It is of course just this exclusion of students from decision-making that has helped to fire campus rebellions. One need not be sentimental about students or blind to their excesses to recognize nonetheless how wise and practical it is to include their view—in fact, to do more than that, to permit their groping for self-determination and power to become itself a driving force in their education. But S-R psychology is not inclined to champion this "vitalist" view that action originates in the individual as well as in the environment.

The kind of curriculum that I have been trying to evolve in collaboration with others could not be successfully evaluated by measures derived from behavioral goals. Not only could it not be assessed, it would never get off the ground because the amount and kind of activities that would have to be run off in the classroom in order to evaluate behavioristically would drive out and distort hopelessly the learning activities themselves. What I have proposed is to settle on a handful of general verbal processes that, if only from a purely logical standpoint, can't fail to develop the growth of thought and language because they are basic sending-and-receiving activities that can be varied in infinite ways, and to back these activities to the hilt without asking either teachers or students to engage in other activities merely or principally for the sake of evaluation. Assessment would occur in two main ways, one informal and the other formal: teachers would constantly match their observations against the statements of students about what they are learning and what they need to learn. Outside raters, experts in discursive learning, would assess samples of student discourse—tapes of discussion, finished compositions along with early drafts, tapes of rehearsed poetry readings, videotapes of acting and improvising—all taken in slice-of-life fashion from the normal

learning activities. Rater evaluation acknowledges the subjectivity of any observer, but the subjectivity can be somewhat offset by quantifying and correlating rater judgments. This sort of observer can combine cues and get a total "reading" about which aspects of reading or composition or conversing a certain group is weak or strong on. This assesses the curriculum, but it does not necessarily tell which student has mastered which sentence structure or been sensitized to which dialectical differences. But to make sure that every student has mastered every specific should not be a goal anyway. Such uniformity at such a level of particularity is not desirable in itself, and, more important, can be bought only at a ruinous price that I, for one, would never be willing to pay.

To appreciate fully the price entailed in behavioral specification of English teaching, we have to envision realistically what will probably be done with such a list of objectives when promulgated by a prestigious leadership corps to the rest of the profession. First of all, I have noticed again and again that when second-level objectives are further specified as third-level objectives,[1] they not only become transformed into activities, which is necessary since this third level is the one that is actually behavioral or observable, but that at least half of these activities are ones I would consider undesirable, such as filling in cloze passages or listing the items of evidence in a speech or essay. The latter might very likely occur, and occur many times, in discussion, but I would be willing to trust that years of small-group discussion would, if teachers knew how to run the process well, naturally cause students to itemize evidence either individually or collectively. I would never be willing, however, to program a curriculum so minutely as to ensure that every student gave observable proof at every developmental stage that he could list someone else's evidence, because to ensure that, along with the myriad other mini-objectives, would pervert the curriculum into one vast testing system that would not leave enough room for something like small group discussion even to become effective. In fact, most major drawbacks in the present curriculum stem from just this self-defeating effort at systematization. Instead of reading, talking, acting, and writing for real, students are taking comprehension tests, doing book reports, writing "critical" papers about literature, parsing sentences, filling in blanks, etc., to make their learning visible to the teacher. Thus the main impact of behavioral formulation in English will be to perfect the error of our present ways.

[1] Moffett here refers to various levels of objectives cited in J. N. Hook's paper in this section.

It is reasonable to assume that a representative list of behavioral goals would be rather eagerly seized upon by (a) administrators at funding sources who are accountable to taxpayers (officials in state and federal education departments and school superintendents), (b) curriculum directors in school systems and all English teachers looking for guidance about how to teach the subject, (c) the testing industry, and (d) teachers of teachers, who wish to bring teacher education in line with the current notions of curriculum and methods. Despite all protestations to the contrary, the scenario will probably play like this. The third- and fourth-level objectives will almost automatically become measures of evaluation because they are, by virtue of being behavioral, almost in testing form already. Since tests are used to measure the performance of curriculum, teachers, and students, everyone concerned has an investment in doing only what can be tested. The testing industry certainly has little motive to pass on to schools the reservations and qualifications about behavioral objectives that the writers of them might feel. Cautionary notes and prefaces are virtually certain to be stripped away. In the familiar circular fashion of all state and national exams so far, these tests will act backward to determine the curriculum, and teachers will teach to them. This shrinking of the curriculum to fit the measuring standards is precisely what the Dartmouth Seminar denounced. Furthermore, only those projects whose objectives are stated in behavioral terms will stand much chance of receiving local, state, and federal money. Since this budgeting bias will bias research and experimentation, the S-R trend will be self-reinforcing, as indeed it has been for some time. After all, the essential motive behind the writing of behavioral objectives is to take the guesswork out of accountability.

Clearly, all areas of education have been advised to conform or lose out. To permit this kind of relationship between government and education is to encourage an already pernicious national trend. A marriage of convenience has taken place between the cost-accounting procedures developed in the Defense Department and the operant-conditioning principles of some behavioral scientists. What they have in common is a manipulative one-sided approach to human affairs and a rejection of two-way transactional models of action. Both gain. Cost-accounting administrators have mated with the psychology that suits their needs and problems best. It is the same psychology that the advertising industry has picked, and for the same reasons—manipulation of others toward one's own ends. The education industry has invested heavily in it by marketing teaching machines and other small-step programed materials. To the extent that teachers and parents misunderstand what edu-

cation is about, they too sometimes "buy" the operant-conditioning model of education—to remove choice from the "subjects" and make them do what teachers and parents want them to. On the other side, what the S-R school of behavioral science itself gains is a support that it has increasingly failed to get among the great leaders within its own discipline. This is an unholy wedding indeed.

English educators should have been asked to write goals according to their best lights but also in the light of an honest presentation of the government's accounting problems. We should never have been asked to fit English to a model chosen for these reasons and with this history. Losing this battle means losing a lot more in the future.

In short, we are being MacNamara-ed, and we should fight it. But, I am told, if we don't write these behavioral objectives, "they" will. If this is true, then let's recognize this for just what it is—extortion. Lend your name and support to this project or else you-know-who will write these objectives instead of you. I simply cannot accept these conditions. I respect the directors of BOE, appreciate their good intentions, and sympathize with their own conflicts about possibly contradictory commitments, but with the submission of this position paper I must withdraw from the project.

On behalf of the directors of the Tri-University BOE Project, Donald A. Seybold drew up the statement that follows. This statement goes beyond a mere reply to Moffett's paper, in that it makes its own contribution to current thinking about objectives in the project.

A Response to 'Misbehaviorist English'

DONALD A. SEYBOLD

All of the dangers inherent in, and the limitations of, a behavioral formulation of objectives that James Moffett discusses in his position paper are very real, and they could, in fact, result in the grossest perversion of the ultimate goals of sound English instruction. The question to be asked, however, is not could this perversion of goals happen, as it admittedly could, but must it inevitably happen, as Moffett apparently believes. If behavioral objectives force us to view teaching as the manipulation and conditioning of students in a narrow animal-behavior, laboratory sense, then such objectives are totally unacceptable. If those involved in the formulation of behavioral objectives and in the teaching that results from such objectives must conceive of "high schools as industrial plants and high school graduates as manufactured products" (as some outside the project apparently believe), such objectives must be avoided at all costs and denounced at every opportunity.

But two facts must be kept clearly in mind as this paper is read: (1) the directors of the Tri-University BOE Project do not view teaching as manipulating and conditioning students in a laboratory sense, and (2) the directors definitely do not conceive of "high schools as industrial plants and high school graduates as manufactured products."

From the beginning of this project, the directors have been gravely concerned about the following:

Donald A. Seybold is with the English Curriculum Study Center, Indiana University. This paper consists of excerpts from a more extended discussion of the Tri-University BOE Project, to appear in a forthcoming publication of the project.

1. The range and limits of responses that are defined as behavioral need to be examined, discussed, and expanded as part of the work of this project, especially as such definitions of behavior affect the teaching and learning of language and literature.
2. Our objectives must avoid the trivial aspects of our discipline that are likely to be stated in behavioral terms simply because they are easy to formulate.
3. We must always concentrate on the most valid and significant outcomes of instruction even though the objectives that will help us arrive at such outcomes may be extremely difficult to formulate.
4. The objectives must not be derived from, or be centered on, evaluation—especially as evaluation is traditionally and narrowly conceived.

The directors believe that our task is to ensure that the objectives developed in this project are ones that do give the broadest possible range to a definition of behavior as it is reflected in the humanistic goals of our discipline. We also believe that the assessment of the outcomes that such objectives achieve must be meaningful, comprehensive, flexible, and open-ended. We further believe that the evaluation must always be secondary to the primary consideration—the student's learning.

In his position paper, Moffett is perhaps overly concerned with discrediting a psychology that the directors are not committed to. He has chosen a very primitive formulation of S-R psychology that none of us could ever allow to be our guide as a result of our own experience and the recent work of psychologists, learning theorists, and linguists. In falsely assuming our commitment to such a psychology, he loses sight of our real commitment: the development of sound, meaningful instructional objectives in language, literature, and composition. Moffett's response to behavioral objectives, based in part on his very legitimate reservations about S-R psychology, seems, ironically enough, the same kind of limited response he so fears and abhors in the psychology he is denouncing. The fact is that the directors of this project are not behavioral psychologists, let alone Skinnerians championing a particular and very limited view of human behavior. All but one of the directors are teachers of English interested in educating children in the best and most effective way. We are interested, as is Moffett, in learning how we can best help students use their language to its fullest potential in as many different kinds and levels of discourse as possible. As Moffett has so brilliantly shown in his own work, particularly *Teaching the Universe of Discourse* and *A*

Student-Centered Language Arts Curriculum, Grades K-13: A Handbook for Teachers, this is not being done in very many classrooms for very many students. His work has set valuable goals and gives all of us invaluable insights into our past failures; it also gives us a sense of direction for correcting those failures in the future. The goals of this project are not at all contradictory to those Moffett hopes will result from his own work. In fact, I hope to be able to suggest in this paper that a behavioral formulation of goals might facilitate Moffett's work, rather than subvert it.

Moffett fears the formulation of educational goals in behavioral terms because of the psychological basis for such a formulation and the possible use that might be made of the objectives once they are developed. As has already been pointed out, his concern with the psychological base seems overwrought and misdirected. His concern with the use that might be made of the objectives, once they are developed, is quite legitimate, but a bit apocalyptic. The plain fact is that behavioral objectives are no more likely to be misused than any other educational tool. Moffett's own curriculum, sensible and exciting as it is, is certainly amenable to the worst sort of aimless drivel in the hands of a mediocre teacher. Which is not to say that we ought not encourage every teacher to follow the Moffett curriculum, or any other that could result in better teaching. But we must do the best job we can to help teachers use wisely whatever it is we offer them in the way of curriculum materials or behavioral objectives. Without proper instruction and guidance, teachers can and do misuse any pedagogical tool.

Our basic disagreement with Moffett is not a matter of the ultimate goals to be reached, nor even of the best classroom methods by which to achieve these goals. The major problem is what kind of formulation seems to be best suited to ensure that desirable goals and desirable methods will be employed by the greatest number of teachers in the greatest number of classrooms. Given a time when the whole system of public education is less rigid, less bureaucratic, less traditional, more flexible, more individualized, and more creative, I doubt that a behavioral statement of objectives would be necessary even when such objectives elicit desirable outcomes. If the desirable outcomes could be universally reached through some other formulation, we might want to avoid behavioral statements because of their admitted potential dangers. However, that millennium has not arrived, nor will it ever, if constructive and substantive changes are not made now to revolutionize teaching and learning.

In spite of the tremendous advances that have been made in educational

research and in material and curriculum development in the last ten years, a great deal of English instruction has been unmoved and untouched by it all, and I'm afraid that little will be done to change quickly enough what so desperately needs to be changed if there is not some concerted effort to give teachers of English a set of objectives that are clear, straightforward, precise, and productive. If this must be done at the risk of imposing, however unintentionally, a more rigid set of goals than is ultimately desirable, I feel that we must be willing to take that risk. Where the objectives will be used inappropriately, it is unlikely they will do more damage than is presently being done. More likely, a program developed from a set of sound objectives, even if rigidly conceived and used, is likely to result in activity and performance superior to what we are now getting. However, I do not believe that behavioral objectives can be defended only negatively.

The development of behavioral objectives in English is embryonic. The Tri-University Project is, in fact, the first attempt at such a large scale assault on the problem. Some local and regional efforts have been going for some time, but probably little work anywhere is more than two or three years old. Such fledgling efforts have resulted in some very good and many very bad objectives, as is to be expected. These primitive efforts have taught us much about the limitations and dangers of behavioral objectives. Part of the work of this project is to see if those failings and dangers are inherent in the behavioral formulation or merely the shortcomings of initial efforts to write such objectives. It seems too soon to tell.

Two things have become apparent over the course of this project thus far. The first is that many, if not all, attempts to write behavioral objectives for English have relied on existing models in other disciplines. From the very outset, the directors have been slightly uncomfortable with what is basically the Mager model [1] and felt that perhaps our objectives would of necessity take a somewhat different form, one that could only become clear as our work progressed and as the consultants became involved. It seems certain now that many of our objectives will not take the form that Mager suggests and, in fact, may not always qualify strictly as behavioral objectives; that is, we will not avoid statements of objectives that we believe can result in internal awareness and discovery which is not always immediately manifest in observable and measurable behavior. Because we are not committed to one school of psychological learning theory or one single model of objective

[1] Robert Mager, *Preparing Instructional Objectives* (Palo Alto: Fearon Publishers, Inc., 1962).

statement, we can, should, and will experiment and develop what seems *most valid*, *most useful*, and *least dangerous*.

The second thing that has become apparent is that, as Moffett says, attempting to write behavioral objectives is "an exercise in clear thinking" because we do "tend to be more fuzzy-headed about what we are doing than math or science teachers." As we attempt to come to terms with the amorphous discipline of English, it becomes abundantly clear that we have been less than clear in our thinking. And if we use behavioral objectives to help us do more efficiently the misguided, sometimes hideous, things we have done in the past, the objectives will promote just the sort of fragmented, evaluation-centered "testing system" that Moffett so justifiably finds unacceptable.

Traditional statements of objectives tend to divorce the learner from the subject matter. Even when such objectives are important, they lose a great deal of their validity by being treated as entities that are totally separate from the learner, when they are seen as objects to be given to the student by the teacher, much as one would give a spoon to a child. Such a conception treats teaching and learning as a series of isolated, partitioned acts in which one gives and the other takes discrete items of information. Behaviorally stated objectives help us to see the limitations of such a view of teaching and learning; behavioral objectives force us to see the dynamic relationships that exist among the subject matter, the teacher, and the taught. Instead of conceiving knowledge as an absolute, self-sufficient entity, we see it as part of a process through which something is learned because it is perceived, identified, interpreted, and used by the learner; it becomes part of him.

For too long we have tended to see the act of learning as something passive. One listens and one learns. One sits and one absorbs. One is empty and is made full. Most programs are teacher-centered and textbook bound. Moffett's very intelligent formulation of an entirely new way of looking at curriculum and learning eschews such instruction. Behavioral objectives by their very nature must do the same.

The disagreement, then, rests not on the focus of instruction but on the nature of the activities that will result from objectives that are behaviorally phrased. Must activities that derive from behavioral objectives be so systemized, so fragmented, so controlled, so evaluation-prone that nothing like natural discourse can take place? Because some existing objectives lend themselves to this sort of teaching, does it mean that they all must? The fact that some previously developed behavioral sequences seem too mechani-

cal, and indeed might easily lend themselves to programing, does not mean that all must turn out or be used this way. Much can be avoided in the way the goals are written. Finally, however, we, like Moffett, must rely upon the judgment, intelligence, and sensitivity of the teachers who use the materials they are given. The teacher who binds himself resolutely and irrevocably to any teaching tool, whether it be a textbook, a curriculum guide, or a set of objectives, can destroy or defile the intentions of the most valid tool.

Our task is to write objectives, citing what we believe to be valid goals that *suggest* activities and ways to reach those goals. The objectives must always focus on the learner and on meaningful goals and activities relevant to the student's natural environment. The objectives must have flexibility and must encourage the use of flexibility in reaching them. The objectives have to encourage natural, open-ended, and creative responses. For instance, objectives that call for the student to list someone else's evidence do not and should not imply that each student do this in isolation for everything he reads. Such objectives should only suggest to the teacher that this sort of ability is useful and that the student should be given frequent opportunities to do this, often in small group discussion.

An objective is a guide, not a dictator. The danger is that the teacher will serve it rather than allowing it to serve him. To avoid unintentional servitude to objectives, a teacher needs them phrased carefully and carefully prefaced so they can be carefully applied. Each objective must have flexibility. Each must emphasize the learner. Each must be real, meaningful, and unfragmented. Each must *not* depend for its existence on limited, one-sided evaluation. Each, finally, must depend upon the teacher: the teacher who recognizes the complexities, diversities, and subtleties of each individual student; the teacher who recognizes all objectives, all curricula as guides to alternatives, not manuals of procedure.

We envision the Tri-University Project catalog of objectives as a recommendation of valid goals for the goalless, order for the chaotic—a reminder that if one doesn't know where he is going, he won't be likely to know when gets there. The catalog is not a laboratory manual for behavioral psychology, not a profit-and-loss statement of accountability, not even a formula for curriculum development or classroom practice.

To emphasize that behavior seems to be the best way, given present knowledge, to focus on teaching and learning is not to deny or to ignore that much is happening in the little "black box" that is significant, although

it may not be observable. To deny that the "black box" exists is like denying the existence of a bottle of ink before it is used to print a word. The ink doesn't mean very much in the bottle, but it is vital in helping produce the written word. While the researcher may focus on the ink in the bottle, the teacher must focus on the students' getting the ink out of the bottle and onto the page, without ever forgetting about the ink that never comes out of the bottle. Perhaps the catalog of objectives developed by this project is just one way of providing paper for the teacher, pens for the student, and words for the future.

This writer sees in the purely behavioristic approach to education an implied lack of belief that "some things difficult to identify, much less to name and measure, are essential to the satisfying life." He asserts that English teaching is, to a significant extent, a process of probing for new ways to widen and deepen the student's perception of the human condition, and asks whether the teaching profession can sacrifice this dimension to public and governmental pressures for an education with "visible" results. Do behavioral objectives mean posting "No Fishing" signs in every classroom?

On Hunting and Fishing and Behaviorism

ROBERT F. HOGAN

There's hunting, and then there's fishing. Sometimes they differ in marked ways. The hunter knows exactly what he is going after, what its usual habitat is, and what its season is. Moreover, there is a conscious fit between the equipment he carries and the kind of animal he hunts. A sixteen-gauge shotgun is fine for hunting quail but not much good for Kodiak bear. But the typical fisherman on the pier at Morro Bay hunches that there may be some stray rock cod, but more likely some small sea bass, or halibut, or smelt, or maybe nothing. But even if it's nothing, there will surely be the good sea air, some sunshine, and a few other fishermen. If the fish aren't biting, it is a matter of small consequence to the fisherman on the pier at Morro Bay. He'll come back tomorrow, or as soon as he can.

What worries me about the current hard push for behavioral objectives in English teaching is that it stems almost wholly from the hunting mentality and leaves precious little room for fishing. The unfeeling behaviorist might observe that the catching of fish only seems to be the point of the activity, and that the affective response to the sun and the sea and the fellowship is really

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what brings the fisherman back. He might thus conclude then that it would be a lot simpler if the fisherman forgot about his pole, tackle and bait. Think of the money the "fisherman" would save if he didn't have to buy gear; after all, cost accountability is important. The experience he is after would be cheaper if he left out the equipment.

Missing from the purely behavioristic approach to education is acceptance that some things difficult to identify, much less to name and measure, are essential to the satisfying life and, if the educational process is to have any connection to life, essential to the educational process as well. Like what, except in Freudian terms, does the pole mean to the fisherman, who doesn't care very much whether he catches anything? Or how can we measure the degree of success or the outcome of a window shopping excursion with one's family, a solitary foray into a second hand bookstore, the browsing together through the Sears catalogue by two small girls deciding which of the dolls each would rather have and which of the pretty models in the fur coats each child is? The only point of the activity is the activity itself, the satisfaction that the experience generates, plus, in the case of the two small girls, practice at using language, at imagining what it would be like if things were different (long before we hit them with the subjunctive mode), learning how to stand up for what you want, and learning in a fairly safe setting how it is to yield to someone else something you want yourself. But to judge the success of the Sears catalogue experience in terms of the child's generosity and selflessness in other situations is to think, God help us, like an adult.

I worry, too, about the tight tidiness of the task force model, of the no-nonsense, mission-centered mentality. Take, for example, the second grade teacher who has as one of her missions the encouragement if not establishment of subject-verb agreement in the language of her pupils. There may be much more important things to do for second-grade children, but that is a subject for a different article. The goal is clear and its approximation is measurable and a fair segment of the community thinks it a defensible goal. And consider this teacher who asked her children to draw a picture about how they felt and to write underneath the picture some words to explain it. And consider the child, carrying out this assignment, who drew a picture of a tombstone with his initials on it and under that wrote "sometimes I wish I was dead." And consider this teacher whose response was to cross out *was* and to write in *were*. That teacher's clarity (and singularity) of purpose is precisely what kept her from being the teacher she could have been in that setting with that child at that moment.

The roots for the current movement are varied. For example, there is the undeniable success of programed learning in teaching certain kinds of activities, particularly where the learning actually does consist of changes in observable behavior and where approximations to the desired behavior can also be measured. The "systems approach" has worked in such enviable fashion in some cases that others understandably seek to adapt it to their purposes. What more remarkable validation can there be for the "systems approach" than the first landing on the moon, even though it did cost us 24 billion dollars, or perhaps because those who wanted that moon shot wanted it enough to invest 24 billion dollars of our money in its execution.

But the success of the mission-centered and systems-based industrial complex in the Northeast is diminished somewhat when one considers what has happened to Lake Erie and what is happening to Lake Michigan and to the atmosphere from Chicago to Boston. Apparently, that sudsy mill stream that powers the grinding mill across the road from the Wayside Inn at Lincoln-Sudbury falls outside everyone's PERT chart. The colossal irony is that while a foundation supported by one industry has worked to restore the Wayside Inn and the other buildings in that setting, another industry is polluting the stream across the way. This phenomenon and that in the second grade classroom cited above differ one from the other only in scope. Once the mission is identified and the task defined, whatever falls outside is likely to be ignored.

Mandates for a curriculum based on behavioral objectives have led to crash programs to produce such curricula. Some of the more generous schools recruit teachers from various subject fields to write such objectives during the summer or on released time during the school year. But everywhere one looks, teachers are writing objectives—in July, on Saturdays, or after school and far into Wednesday night.

In the meantime, though, without ever putting them down in scientific terms, the children are constantly establishing and modifying their objectives. And theirs will almost invariably contaminate ours. We can, if we choose to, set for a ninth grade class taking a six-week unit in expository writing this objective: that 90 percent of the students will be able 90 percent of the time to write an acceptable five-sentence running outline for an expository composition of approximately 250 words. Meanwhile, Jennie has discovered "Annabel Lee" and would really prefer to write poems about star-crossed lovers. And Walter, whose father is editorial writer for the local newspaper, knows that his father writes to whatever topic the editorial is about and is really quite

curious to see how it is going to come out. Fred's girl friend has missed her period for two months running. Georgia's parents have been divorced and she is now living with her aunt and uncle, and the latter is trying to seduce her older sister. Talk to them about five-sentence running outlines!

Having said all this, which is too much and too little, let me concede that a great many well-intentioned but muddle-headed English teachers have for years wasted their efforts, their children's time, and the taxpayer's money in fruitless pursuit of unreachable or unstated goals, in the examination of subject matter for its own sake. Except for what they've done to children, though, they are not too culpable. After all, it was the vocal and voting community that once placed a premium on memorizing pretty phrases from *Evangeline*, on diagramming sentences that began with a nominative absolute, and on studying the spelling of *vicissitude*. That vocal community, or another community which has found a louder voice, has veered its course and changed its expectations. And the schools have some responsibility to veer, too. If the schools are going to enjoy anything like the support given to the moonshot, then those who control the money are going to have to be persuaded that the schools are worth it.

But while we must respond to the community, we cannot in conscience capitulate to it. Some areas of our instruction may well yield to statements of performance standards. The success of most of our grammar programs—if success is measured by changes and presumably improvement in the language use of children—is modest at best. Overall improvement in performance through the secondary school years may rest more on one fact than on any other—on the fact that a third of our students, including some of the poorest, drop out between grades nine and twelve and thus change the nature of the population being examined or tested. If it's language propriety we are after—and *that* is a subject for a different article, too—surely we can specify some of the changes we seek and admit that past programs have not brought about those changes.

Actually, we have long been loosely framing behavioral outcomes for the simpler skills—e.g., spelling, penmanship, vocabulary growth—and even for some of the more complex skills—e.g., reading to detect and understand irony. All that the behaviorists are doing now is urging us to state the goals more clearly. Assuming that 100 percent mastery by all pupils on all occasions may be too much to expect, what level of performance do we seek for what percentage of students in what period of time at what grade level?

But given the present low level of sophistication in measurement, we are

asked to determine from secondary clues some manifestation of change in affective behavior. (Appreciation of the same poem by different students may be revealed by vigorous participation in a following discussion, by stunned silence, by tears, or by a sudden connection six months later with another poem, or by none of these.) But we are not told what clues count nor all the clues that might count. And we are badgered by those who do not know our field to write objectives to their specifications or to admit that we don't know what we're doing. What they do not understand is that even when we do not know what precisely we are doing, we know what we are doing, and why.

Sometimes we are fishing. We don't know if we are going to catch anything, or what it is we will catch if we do make a strike. Today we are going into class with our gear: "Stopping by Woods" and a couple of questions we hope will spark a discussion which will enliven for the students and ourselves the experience of that poem. After school, we'll stop by the lounge with our fellow fishermen and swap stories about how it went and maybe we will trade suggestions about bait and try again tomorrow. Next week I am going hunting—I am going to try again to set up a discussion in which 90 percent of the students (that is, except for two incurably shy ones and Georgia, who is still living through her private hell) will respond relevantly to the comments of their classmates (90 percent of the time) and loud enough for everyone to hear (100 percent of the time) with a minimum of intervention from me (their comments to exceed mine by at least four to one). But tomorrow—tomorrow I am going fishing. Because to teach English is to spend part of one's time fishing.

(Tonight I am going to try again to teach my youngest daughter to brush her teeth up and down. I am also going to kiss her goodnight and nuzzle her a little. I would like her to grow up with clean, strong teeth. I'd also like her to grow up nuzzled. I have the feeling it will make a difference, even if I can't tell how that difference will manifest itself.)

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An NCTE/ERIC Bibliography on Behavioral Objectives

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The documents cited below are either immediately pertinent to English instruction or applicable thereto; they are grouped into four general subject categories for ease of reference. No attempt has been made to make this either a comprehensive or highly selective list; instead, the intention is to announce to the profession a number of documents relevant to constructing and applying behavioral objectives—especially those which have been processed by the ERIC system to date.

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